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ADMINISTRATION REPORT

OF THE

PUBLIC HEALTH DEPARTMENT OF THE

CITY OF PORT-OF-SPAIN

FOR THE YEAR

1954

BY

DR. RODERICK MARCANO, O.B.E., M.D. (Lond.), M.R.C.P. (Lond.), D.P.H. (Lond.)
MEDICAL OFFICER OF HEALTH

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**Local Authority in the Urban Sanitary District of the
City of Port-of-Spain**

1953-1954

THE CITY COUNCIL

HIS WORSHIP THE MAYOR, COUNCILLOR J. PACKER HUTCHINSON, J.P.

Deputy Mayor :

COUNCILLOR M. LEE LUNG

Aldermen :

L. R. GOMES

B. I. LALSINGH

H. HUDSON PHILLIPS

E. LEE LUM

HON. RANJIT KUMAR

Councillors :

G. CABRAL, C.B.E.

R. HAMEL-SMITH

F. CAESAR

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H. M. COOK

HON. R. QUEVEDO

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J. M. SAMPSON

J. FOSTER

H. SCOTT

C. B. TYWANG

**Administration Report of the Public Health Department of the City of
Port-of-Spain, Year 1954**

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PUBLIC HEALTH DEPARTMENT,
35, FREDERICK STREET,
PORT-OF-SPAIN,
TRINIDAD, B.W.I.

28th October, 1955

URBAN SANITARY DISTRICT OF THE CITY OF PORT-OF-SPAIN

SECRETARY, LOCAL AUTHORITY,

SIR,

I have the honour to submit, for the information of the Local Authority, the Annual Report on the health and sanitary condition of the Urban Sanitary District of the City of Port-of-Spain for the year ended 31st December, 1954.

The year 1954 will always be remembered in the annals of the history of the Local Sanitary Authority as the year in which outbreaks of two infectious diseases, one a "dangerous infectious" disease, occurred in the Colony with the usual concomitant results in so far as the City was concerned.

Infantile Paralysis occurred in epidemic form beginning in January and persisting right through the year until October when the number of cases began to fall off.

In late April signs that something unusual was happening in the eastern and southern forest areas of the Colony began to appear by the regularity with which hunters in these areas were reporting that they were encountering dead monkeys in unprecedented numbers in the course of their journeys, and on examination these dead monkeys were shown to have been infected at some time or other with yellow fever virus.

These reports were soon followed by the occurrence of a case of yellow fever in a newly opened up forest region north of Arima, and other cases of jungle yellow fever occurred in persons who had frequented the forests or lived in close proximity to forests, and a few cases actually succumbed to the infection.

The next event that rather stirred us in the City was the occurrence of a case of yellow fever at an address on the peripheral limits of the City, who apparently had had no connection whatsoever with the forest areas of the eastern or southern or south-eastern parts of the Island and who had not been in contact with any of the previously reported cases of jungle yellow fever.

This being the first case of urban yellow fever, Port-of-Spain and its environs had perforce, in keeping with International Regulations, to be declared a "yellow fever infected area". One other case was reported to have occurred in an area that adjoins the City on the east, but fortunately this case and the case that occurred in the Long Circular Road area was of a mild type and recovery was quick and complete.

Port-of-Spain having been declared a "yellow fever infected area," the disadvantages, the inconveniences, the stigma, and the monetary loss incidental to quarantine descended upon the City and particularly upon that important southern section of it—the Port—and the intensification of the *aedes aegypti* eradication campaign became the major preoccupation of the Central Board of Health which, in accordance with the Public Health Ordinance, had to undertake the measures necessary to secure the isolation of cases, the checking of the spread of the disease, and the elimination of the vector.

The Anti-Mosquito Unit of the Public Health Department of the City came immediately under the direction and control of the Central Government, but the work that had to be done and done quickly was actually executed by the operatives of the Anti-Mosquito Unit, aided in the mass spraying campaign that had now to be undertaken by units supplied by the Malaria Division of the Health Department of Government.

Yellow Fever Regulations, the Public Health (Yellow Fever) Regulations, 1954, had quickly to be enacted into law, for without them, it would not have been possible to secure the 100 per cent. co-operation of the public which it was imperative to secure, and in the face of the threat of a major outbreak of yellow fever, which was predicted by the experts, there was scare and alarm on the part of the general public, and any measure designed to rid the City of this menace was welcome.

As a result of the co-operation of the public, the intensive measures initiated, and the hard conscientious work of the Anti-Mosquito Unit, it was possible to have the label "yellow fever infected area" removed at the end of three months, and trade and international traffic reverted once more to normal.

I am of the opinion that these factors played the major role in preventing an epidemic of urban yellow fever in the City, but I am also convinced that had not consistent anti-*aedes* work been carried out during the preceding years by the Anti-Mosquito Unit, the result might have been different. The density of mosquitoes of the *aedes aegypti* species in that particular area of the City where the first case of yellow fever occurred was not such as to permit the rapid multiplication and dissemination of the virus in amounts necessary to permit an outbreak of urban yellow fever. To that extent the work of the Unit, handicapped and impeded as it was by absence of any legislation to enforce compliance, may be said to have saved precious lives and to have conserved large sums of money.

All told 15 cases occurred in the Colony as a whole, of which 4 died, but judging from what is common knowledge in so far as the difficulty with which cases of this disease are discovered and diagnosed, it may be stated with some degree of accuracy that some 50 cases must have occurred in the course of the outbreak.

Previous outbreaks of yellow fever affected the City in the year 1908 and again in 1912.

In so far as the epidemic of infantile paralysis was concerned, it may be stated that the epidemic was a comparatively mild one and though cases continued to occur throughout the year, no deaths were recorded and paralytic and other sequelae were comparatively few indeed. All told

35 cases were reported by way of notifications to the Public Health Department, all of whom were hospitalised. This was in marked contrast to the epidemic of 1942 when many severe cases occurred, a few of which died and many of which bear outward signs of their severity by the crippling sequelae that can still be seen. A total of 186 cases were reported in this outbreak, the second largest number within the last 15 years; 194 cases were reported in the year 1942, the largest number of cases of this disease that have so far been reported in this Colony.

But for these major happenings, the year 1954 could be written down as one in which nothing new was attempted and nothing new achieved, where major works were conspicuous by their absence, in which the hopes that all the various schemes on paper stimulated were never realised and where nothing but the usual day-to-day routine work of maintenance and nuisance abatement was carried out.

The buoyant hope that the unsewered section of the City would at long last be sewered, that the Eastern Districts would be better sanitated and better drained, that a better water supply would be forthcoming and that a better road system would be laid down is now being gradually replaced by a spirit of resignation to the inevitable fate of a visionary whose day dreaming had failed to take cognisance of the comparative impotence of the elected representative, in so far as these matters are concerned.

From the statistical point of view the figures for the year under report present no cause for alarm and do not differ materially from these of the previous year.

If anything, they represent a slight deterioration compared with those for 1953, but this can hardly be stated to be of any great significance. The size of the City remains the same, i.e. 2,550 acres, but the mean population, i.e. the population at June 30, 1954, was estimated to be 114,150, compared with 111,150 in 1953.

Total live births numbered 5,403 and deaths 1,028, giving a birth rate of 4,733 and a death rate of 901 per 100,000 population, as compared with 4,048 and 997 per 100,000 population in 1953. The infant mortality rate worked out to be 27.76 per 1,000 live births as against 34.90 per 1,000 live births in 1953.

In so far as death rates for individual diseases or groups of diseases are concerned, all the figures for 1954 worked out a trifle higher than the corresponding for 1953 except for diseases of the heart and blood vessels, diarrhoea and enteritis, and cancer and other malignant diseases where the death rates were 230, 32 and 84 per 100,000 population as compared with 269, 51, and 102 per 100,000 population respectively in 1953.

There was, however, a significant increase in the number of deaths from diseases of the nervous system including cerebral haemorrhage where the rate worked out to be 133 per 100,000 population as compared with 94 per 100,000 population in 1953.

We are still short of our full complement of Sanitary Inspectors, 2 of whom left us during the year under report to go abroad to further their studies with a view to qualifying in the profession of their choice. More have left on a similar mission abroad during the present year and it would appear that this method of leaving the Department is becoming fashionable: this, at least, can be said about the Public Health Department viz. the hard grind and small pay seems to have the effect of stimulating ambition. We have had, as a result, to recall men who are on the retired list as well as to give employment to Sanitary Inspectors who have left other services.

Generally it can be stated that the work of the staff, pensionable and nonpensionable, is satisfactory but there are notable gaps and the work of supervision, exhortation and stimulation still continues to be strenuous and tiring.

The building that houses the Public Health Department continues to deteriorate and larger and larger pieces of woodwork and masonry continue to fall. The prevailing showers of rain seem to show up how leaky and unreliable the roof of this very old building is becoming. When the new Town Hall into which the Public Health Department will be incorporated will be built is still in the laps of the gods and your guess is as good as mine. We can only continue to hope for the best.

The Mayor, Aldermen and Councillors continued in the year under report to show their customary interest in public health matters by the numbers of questions asked, the enquiries made, and by the lively discussions that take place at the monthly meetings of the Local Sanitary Authority. In addition, Councillors never fail to come to the Department with complaints relative to the existence of nuisances which they desire to have abated for the benefit of the burgesses. They serve as a most important adjunct between the Department and the general public and the co-operation that the general public exhibits in matters that affect the public health is in no small measure due to the influence and exhortation of the elected representatives.

For this, we of the Public Health Department are truly grateful.

I am to record once again the active help and ready co-operation afforded the Department by the Departments presided over by the Town Clerk and the City Engineer; and without which, of course, not much can be achieved.

I have the honour to be,

Sir,

Your obedient servant,

RODERICK MARCANO
Medical Officer of Health

NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT

The natural and social conditions of the Urban Sanitary District continue to exhibit the same unsatisfactory features to which I have been drawing attention for a number of years now. If anything the situation has got worse, as we have not been successful in doing anything or in getting anything done in the past year directed towards their improvement. No addition to the area of the City was made in the year 1954 but there has been a good deal of discussion as to the necessity for extending the City westwards and at the same time it is not forgotten that if and when the Municipalities recommended by the Spurling Committee are set up, an area on the eastern limits of the City which includes the greater part of John John and a section of Laventille as well as the well known Trou Macaque will have to be included within the City, not without the permanent major works of drainage and road making necessary to put them in good sanitary condition, I hope.

The major drainage channels of the Santa Barbara Ravine, the Dry River and Maraval River do succeed in containing the volumes of storm water resulting from moderate showers, but during heavy downpours the City continues to get flooded and the streets and slipper drains are full and overflowing for hours after.

It is to be hoped that the Santa Barbara Ravine will be dealt with and the work on the Maraval River completed in the year 1956.

The eastern section of the City continues to present the overcrowded, insanitated and generally unhealthy appearance that it has done for the past 20 years now, and the major permanent works necessary to sewer and drain the area, to widen roads and to layout lots, to supply water and lights, seem as far off now as they ever were.

The population of the City has increased naturally during the year under review by 4,375 souls and after making allowance for emigration and immigration, etc., 114,150 inhabitants live in an area of 2,550 acres under conditions of overcrowding and congestion in nearly every district of the City except St. Clair, the greater portion of Woodbrook and St. James.

Very few dwelling houses have been constructed in the year under report and the slum clearance that has been effected hardly touches the problem, of course. Shanty Town remained practically untouched in so far as the old established shacks are concerned, and the residents of that area continue to live and eke out an existence under conditions that border on the primitive. Certainly the menace that this area presents to the health and well being of the rest of the City continues to grow with each succeeding day in proportion as the ramshackle and dilapidated shanties continue to increase because of the acute housing shortage.

The Mucurapo and Wrightson Road areas remain the same. The expected works directed to the laying out of these areas for business and dwelling purposes did not materialise and this area continues to harbour cows, donkeys and goats, to breed mosquitoes in the innumerable tins, coconut shells and old tyres that litter the place, and in the countless holes and depressions that occur here and are actually created by builders and contractors in their search for sand and earth.

SANITARY CIRCUMSTANCES

Water

No major development under this heading can be recorded during the year under review. Additional water in the way of supplies from two Wharf wells were made available to the City by Government and two deep wells were sunk in the Savannah area, but so far have not been connected with the Distribution System.

The river sources continued their supplies with the customary defects of occasional floods during the rainy season and of diminished volume during the dry season. The raw water that they furnish is, of course, of inferior quality and requires a good deal of sterilising chemical, but it is remarkable how they succeed in helping to solve the water difficulties of the City which is in need of a more adequate supply and a product of greater initial purity.

The well sources continue to furnish supplies that need much less treatment and they can be relied upon in so far as volume is concerned throughout the year.

A strict eye has to be kept and is kept on all sources of water supply and also on the Distribution System, and regular sampling at all sources and at different points in the Distribution System takes place.

The Water Sampling Officer is also Sanitary Inspector in charge of the Catchment Areas and he patrols the catchment areas of all sources with a view to eliminating actual and potential sources of contamination at the earliest possible moment before any harm has been done. I can only repeat here what I have been stating consistently for the past 18 years that the water supply and distribution system of the City need complete revamping and the river sources must be replaced at the earliest possible moment by water from new sources not subject to pollution, and whose initial purity is above reproach.

Bacteriological Examination of Water Supply, 1954

WHERE DERIVED	No. of Samples taken	RESULTS OF EXAMINATION			
		Safe	Unsatisfactory (Presumptive B. Coli present)	Not safe without further treatment (Non-faecal)	Not safe without further treatment (faecal type B. Coli present)
*Cocorite (Wells)	97	93	4	—	—
Docksite Wells (untreated)	48	45	3	—	—
†St. Clair Pumping Station	65	52	12	—	1
‡St. Clair Well (untreated)	—	—	—	—	—
‡St. Clair Well (treated)	50	50	—	—	—
†Maraval Reservoir	74	56	11	3	4
§Cascade Reservoir	101	96	4	—	1
§St. Ann's Reservoir	213	198	12	1	2
Knagg's Hill Reservoir	17	17	—	—	—
Laventille Reservoir	7	7	—	—	—
||Picton Reservoir	42	40	2	—	—
Queen's Park Savannah Well No. 1 (untreated)...	48	45	3	—	—
¶143, Charlotte Street (Tap)	43	36	4	—	3
¶133, Henry Street (Tap)	40	36	3	—	1
¶Colonial Hospital (Tap)	45	41	2	—	2
Masson Hospital (Tap)	51	45	4	—	2
†Saddle Road, La Seiva (Tap)	46	34	11	—	1
Microbiological Institute (Taps)	51	47	2	—	2
Sanitary Laundry (Tap)	49	49	—	—	—
Trinidad and Tobago Electricity Commission (Tap)	18	16	2	—	—
Furness Withy & Co. (Taps)	128	116	9	—	3
St. James (Taps)	39	33	5	—	1
Woodbrook (Taps)	44	41	3	—	—
City Proper (Taps)	69	64	4	1	—
East Dry River (Taps)	55	38	5	—	12
Belmont (Taps)	46	45	1	—	—
St. Clair (Taps)	43	39	4	—	—
WELLS ON PRIVATE PROPERTY					
**Trinidad and Tobago Electricity Commission, Wrightson Road	2	2	—	—	—
**Furness Withy & Co., 84, Marine Square	2	—	1	1	—
**Sanitary Laundry, 1, Ajax Street	3	—	—	—	3
Electric Ice Co., 3A, Ariapita Avenue	53	45	7	—	1
Canning & Co., 60-68, Richmond Street	98	95	2	1	—
	1,687	1,521	120	7	39

Standard of Purity : B. Coli absent in 100 ccs.

- *Chlorinated, not filtered.
- †Filtered after chlorination.
- ‡Chlorinated before distribution.
- §Filtered before chlorination.
- || Filtered before chloramination.
- ¶Chlorinated, after having been filtered and chloraminated.
- **Not used for drinking purposes.

Chemical Examination of Water

Samples examined by Government Chemist—1954

WHERE DERIVED	No. of samples Examined	No. of Samples found safe
Picton Reservoir	40	40
Maraval Reservoir	12	12
Cascade Reservoir	12	12
St. Ann's Reservoir	12	12
Cocorite Pumping Station	12	12
Cocorite Pumping Station (for salinity)	243	243
Docksite Well No. 2	12	12
Queen's Park Savannah Well No. 1	11	11
St. Clair Well	12	12
	366	366

Drainage and Sewerage

There is nothing new to report in the year 1954 under this heading. No works of any kind to alleviate the drainage and sewerage difficulties that I have detailed in previous reports were executed in the year under report though at the moment I write drainage works in the Harding Place Area are proceeding apace.

That recurrent source of drainage trouble, the Santa Barbara River, still remains to be tackled, but as it happens to be a project of major importance and as the cost of the entire scheme is likely to be great, it is clear that it is better to wait until the whole ravine, starting at the source outside the limits of the City and extending through the City to the sea, can be dealt with as a whole.

The Sewerage Works designed to get rid of the cesspit system in the Belmont and East Dry River Areas still remain a project on paper and the sewage treatment plant that once served Waller Field and which was bought by the Council for this particular purpose still lies at the Mucurapo Pumping Station unused and rusting.

Scavenging and Refuse Disposal

This work which is undertaken by City Engineer's Department continued unabated during the year under report and it must be stated that the scavenging of the City as a whole is not unsatisfactory. The main streets present a clean appearance for the greater part of the day and night. The scavengers, both night workers and day workers, manage to do a fair day's or fair night's work and the Manager, Transport Train, does succeed in getting his trucks and lorries to make the necessary collections of refuse from the streets and the dustbins of householders and to take the refuse to the Eastern Dump where it is disposed of.

There are a few glaring errors that need correction: The scavenging trucks, lorries and carts still continue to remain uncovered even though covers are provided for them and they are usually full and overflowing before a journey to the Dump is undertaken. The result is that a certain amount of refuse is again littered on the streets, and this has to be swept up again and collected later on the same or succeeding day. Covered vehicles are, of course, an absolute necessity, but what can be done with workmen who will not take the trouble to roll the covers over the filled trucks?

It may as well be noted here that scavenging trucks are undergoing a change of type, side loading is giving place to rear loading with compression of refuse. By this means much more refuse can be filled into a truck and the journeys to the Dump consequently fewer, and of course, the rear door has perforce to be kept closed.

Not all the streets of the City are kept clean and sweet by regular and efficient scavenging. The smaller highways on the outskirts of the City do not receive the same treatment as the more central and more important streets in the lower down-town areas of the City. Too often is rubbish dumped on these streets by householders who have no proper dustbins and who take a morbid delight in disfiguring the face of the street and in making it more difficult for the scavengers.

It is on these streets that those fixtures known as "concrete bins" are usually situated; they, by the way they are kept and by the usually overflowing aspect they present, spoil the efforts of the scavengers and the collecting trucks, as no sooner they are emptied they get full and overflowing again by those careless people who never succeed in getting all their refuse inside the bin.

Accumulations outside the bin are scratched about by dogs in search of food and bones, and so the immediate vicinity of these bins are invariably dirty and covered with refuse of all kinds.

The narrow lanes and tracks of the eastern part of the City do not receive the attention they deserve and when they do the attempts made to clean them are inadequate and half-hearted. The female scavengers in the East Dry River District do succeed in collecting a certain amount of refuse and head it down to the sides of the streets, but much more refuse is thrown about the drains, open spaces and vacant lots that are to be found in these districts and, of course, this refuse remains uncollected and usually succeeds in creating nuisance. Again the accumulations that adorn the sides of the streets are often not picked up quickly enough by the scavenging carts and dogs, cats and poultry succeed in dispersing them far and wide and so mess up once more the same streets which only a little while previously had been swept and cleared.

The obvious remedy is the provision of one or two trucks of smaller capacity and of short wheel-base able to negotiate the hilly areas of the East Dry River Districts and so collect on the spot the bins, cartons, &c., of the residents of the area.

For years it has been realised that this is the only proper and efficient way of getting the refuse of householders in these areas to the Eastern Dump and so put an end to this regular and consistent dumping, but it would appear that we are as far away from this very desirable objective as ever. In fact the scavenging service needs revamping as a whole. What is needed are more scavenging trucks of modern design, regular sweeping and collecting in all parts of the City, in the hilly areas as well as in areas on the flat, a more responsible and more robust type of scavenger equipped with better appliances and supplied with protective clothing.

The Eastern Dump

Much more care has been devoted to the Dump by the Manager, Transport Train, during the year under report due to the fact that the Local Sanitary Authority has had its attention drawn to the fact that the various nuisances created here by flies, mosquitoes, and vermin of various types which at one time were so prevalent, are a potential menace to the health of the whole City.

In fact, at a cost of nearly two thousand dollars, the whole area had to be sprayed with DDT emulsion as part of the anti-yellow fever campaign because the breeding of mosquitoes, of the *aedes aegypti* species particularly, was heavy in this area.

Here also is situated at its south-western end that part of Shanty Town which is within the City, occupied by slum dwellers who were allowed, in spite of numerous protests and strong representations to the Local Sanitary Authority, to set up primitive shacks in this area not supplied with the elementary provisions for decent living such as are necessary for the proper disposal of faecal matter or for the cleaning of hands and body.

These dwellers eke out a living by searching the Dump for materials of value, digging into it for bits and pieces of metal, and collecting scraps of food material with which to feed pigs or to rear poultry. Bottles, old crockery, old tyres, &c., are collected in large quantities and when deposited within the narrow confines of the spaces on which the shacks have been constructed furnish a potential and often an actual source of mosquito breeding and fly nuisance. Besides, these people impede the work of controlled tipping and often spoil it when they dig and search for materials of value.

With the aid of a bulldozer loaned us by the Works and Hydraulics Department, a valiant and largely successful attempt has been made to do controlled tipping and if only the dumped refuse were covered every day with a layer of earth and not left two, three or even four days uncovered, the results, I am sure would be ideal. Suffice it to say, however, that a good job has been done and is being done at the Dump; the whole area is being levelled, dumping is taking place in a regular and orderly way at the advancing edge, and refuse is being covered with a layer of earth at intervals.

Much more, however, remains to be done, but it is remarkable what results can be achieved with the aid of mechanical apparatus and with the will and desire to follow the directions of the Public Health Department.

I need hardly state how pleased we of the Public Health Department are with what at one time did constitute a threat and menace to the public health of the City and we are satisfied that, even if we were almost broken-hearted at our failure to achieve anything so long, it was well worth while persisting in our constant reference to this Dump and in the constant repetition of what we considered the absolute essentials to put this place in good sanitary condition.

SANITARY INSPECTION OF THE DISTRICT

Premises and Occupations controlled by Bye-laws and Regulations

(Food)

The work of food examination, the condemnation of unsound food, inspection and registration of food premises, the licensing of itinerant vendors, the medical examination of food vendors, continued unabated during the year under report with results that can be considered not unsatisfactory. Three Sanitary Inspectors with the Meat and Other Foods qualifications are engaged in this work. The Senior Food Inspector has had a year's course in the United Kingdom and is the possessor of the Certificate in Food Hygiene of the Royal Sanitary Institute. He is responsible for planning, directing and controlling this work.

One Inspector is stationed in the Port Area, and he examines all incoming food after the manner and following the technique of the food inspectors attached to the Port of London. Another Sanitary Inspector devotes his attention specially to all itinerant food vendors in the City, and the third works in co-operation with the District Sanitary Inspectors and is responsible specifically for the eventual registration of all shops, parlours, restaurants, food places, &c.

In spite of the slow going that is inevitable to this type of work, we are satisfied that progress is being made and we are beginning to succeed in getting vendors and owners to prepare and offer for sale a clean, safe and wholesome product. It has been through the years and continues still to be, hard uphill work associated with many setbacks and many hard knocks, but by education one moment and compulsion the next, we are beginning to make owners, vendors and food handlers realize that "it pays to be clean" and that there is money in clean food. Whilst the campaign as it affects the general public continues from day to day, we of the Corporation often feel embarrassed with a sense of guilt when a finger is pointed at our markets, the Eastern and Fish Markets particularly. Here there is obvious need for greater cleanliness, better appliances, stalls that are covered and protected from contamination, more running water for certain types of foodstuffs, and on the whole a more strict observance of those rules and regulations that we have had passed by the Central Board of Health and the Governor in Council for the better sanitation of our markets and to safeguard the health of the citizens. We should by all means set an example and be the first to observe the laws and regulations that we have ourselves framed.

It is, of course, a question of funds, of which we are woefully short, but the implications are too serious for ourselves and for the inhabitants of our City to permit this state of affairs to continue much longer.

Every time a conviction is registered against an erring food vendor, there is a twinge of conscience that we too could be convicted for practically the same offence.

I have recently in the course of my recent sojourn abroad, seen and investigated the problem of food protection at a number of centres and I have been able to discover a variety of glass-covered cupboards, stalls and display cabinets that would solve our difficulties, but it would mean the outlay of a rather large sum of money to replace all existing stalls by appliances of this type. I must, however, repeat that means must be found to bring our markets up to date and effectively to protect foodstuffs on sale and in the course of preparation for sale, and we must gird our loins to the task.

A more intelligent type of worker and handler in the food preparing and selling business, the more universal provision of food-protecting appliances, the greater use of refrigerating units, a more liberal use of detergents and of soap and hot water, more durable and cleaner uniforms, the wrapping of foodstuffs of all kinds; these are the main planks in our clean food campaign and as I have stated before we must begin by putting our own house in order.

Sale of Foodstuffs Bye-laws

REGISTRATION OF SHOPS, ETC. (1954)

Provision, meat, and spirit shops, restaurants, hotels, refreshment parlours	...	...	...	...	...	368
Ground provision and fruit shops	...	...	...	...	...	35
Bakehouses	...	...	...	...	...	14
Confectionery shops	...	...	...	...	...	1
Aerated water factories	...	...	...	...	...	4
Other factories	...	...	...	...	...	7
Total 1954	...	...	...	...	...	429
Total 1953	...	...	...	...	...	452

REGISTRATION OF VENDORS (1954)

Bread and cakes	...	...	...	...	...	35
Confectionery	...	...	...	...	...	15
Cooked food including fries, souse, &c.	...	...	...	...	...	71
Ice cream and palets	...	...	...	...	...	10
Sweet drinks	...	...	...	...	...	41
Vegetables, greens, fruits	...	...	...	...	...	103
Miscellaneous	...	...	...	...	...	24
Total 1954	...	...	...	...	...	299
Total 1953	...	...	...	...	...	328

Number of badges issued to itinerant vendors ... 299 (328-1953)

Number of oyster vendors licensed under Sale of Oyster Bye-laws Nil (4-1953)

Sale of Milk Bye-laws

DAIRIES AND MILK SHOPS (1954)

<i>Sub-Districts</i>	<i>Cowshed Licences Issued</i>					
City proper	—
East Dry River (unsewered)...	—
Belmont (unsewered)	—
Woodbrook (sewered, but premises not all connected with the sewerage system)	1
St. James (unsewered)	3
Total 1954	4
Total 1953	22

DAIRYMEN'S LICENCES (1954)

Dairymen's licences issued to cowkeepers and other purveyors of milk	...	...	...	...	...	7
Dairymen's licences issued to shops, milk bars and refreshment parlours	...	...	...	...	...	50
Total 1954	...	...	...	...	...	57
Total 1953	...	...	...	...	...	62

MILK VENDORS' LICENCES AND BADGES (1954)

	<i>Milk Vendors' Licences</i>		<i>Cows Tuberculin Tested</i>	<i>Badges</i>
Port-of-Spain	56	12
Out-districts	66	69
Total 1954	122	81
Total 1953	150	118

FOODSTUFFS SEIZED OR SURRENDERED AND DESTROYED—1954

Under Part X of the Public Health Ordinance, Ch. 12. No. 4.

Apples	...	...cans	...	17	Meats (preserved)				
Baking Powder	...	...pounds	...	639	including bacon	...	barrels	...	203
Beans	...	...tins	...	10	brawn, chicken haddie	...	...	cans	28
Beet-root	...	...pounds	...	145	corned and pickled beef,	...	...	cases	138
Butter	...	...cases	...	3	frozen meat and fowl	...	...	pounds	2,614
		...	pounds	235	ham, pudding,	...	...	tins	1,071
		...	tins	588	sausages				
Cabbage	...	...pounds	...	385	Milk (preserved)	...	...	cartons	3
Cheese	...	...boxes	...	148	sweetened and	...	...	pounds	122
		...	pounds	893	unsweetened	...	...	tins	586
Cocoa	...	...packages	...	72	Noodles	...	...	pounds	13½
Condiments	...	...bottles	...	62	Nuts	...	...	pounds	26
		...	cartons	2	Oats	...	...	pounds	114
		...	pounds	22	Onions	...	...	bags	1
		...	tins	23		...	...	pounds	400
Confectionery	...	...cartons	...	1	Peanut Butter	...	...	bottles	28
		...	boxes	7	Peas	...	...	bags	23
		...	pounds	29	Potatoes	...	...	bags	630
		...	tins	1	Salt	...	...	bags	3
Corn (flakes)	...	...packages	...	30	Tomato Juice and	...	...	cases	2
Corn (sweet)	...	...tins	...	65	Paste	...	...	pints	14
Fish (preserved)	...	...boxes	...	1	Vegetable Salad and	...	...	tins	863
		...	cases	4	Soup				
		...	pounds	20					
		...	tins	1,152					
Fish (wet)	...	...pounds	...	115¼					
Flour	...	...bags	...	11					
Foodstuffs (Miscellaneous)	...	...	bottles	9					
		...	cases	11					
		...	pounds	38½					
		...	tins	72					
Fruits (preserved)	...	...cases	...	5					
		...	pounds	93¾					
		...	tins	661					
Macaroni	...	...cans	...	5					
		...	cartons	1					
		...	pounds	41					

Anti-Rat Measures

The Anti-Rat Unit of the Public Health Department continued, during the year under report, its routine work under this heading and the service rendered can be considered satisfactory. This unit of 39 men covers the entire area of the City in the performance of their work of rat detection and rat destruction. They, of course, concentrated their efforts on the down-town areas wherein are situated the large warehouses and food stores and where rats can be expected to find comfortable harbourages and a sufficient food supply. Here the plan of operation is by survey for the detection of rat nuisance and then a poisoning operation directed to the destruction of rats and the abatement of the nuisance. A knockdown operation by pre-baiting and poison baiting with one of the more quickly acting poisons, arsenious oxide or zinc phosphide is usually undertaken to be followed by a post baiting operation in which "Sorex" is incorporated in the bait. These operations are usually quite successful and a properly planned and efficiently executed operation often results in the killing of large numbers of rats which are easily discovered and collected on the spot. There is never, as a rule, any difficulty with poultry or with pets, as a cat or dog, such as we encounter occasionally in the dwelling house districts of the City.

Fewer and fewer traps are being bought by the Public Health Department but mice traps find a ready call for their services.

Again in the down-town areas we usually plan our operations on the block system and include underground drains as well.

In the other parts of the City a system of house-to-house inspection is in operation and when rat nuisance is detected or complained of either "Sorex" baiting or traps are resorted to.

We still find "Sorex" to be a most valuable "rat poison" and the results month after month continue to be gratifying and there is no question yet of acclimatization or tolerance. The Sorex bait is eaten day after day without any lessening or abatement until the fifth or sixth day when internal haemorrhage takes place. As this is usually preceded by a "compelling thirst", the rats go in search of water which may be far away and they then die in places that are not always readily accessible. At times it is only by the stench that they give rise to when their bodies decompose that we discover that death has occurred and we are at times sorely tried to discover and eliminate the source of this nuisance. Though the Unit has been responsible for the destruction of more and more rats as the years pass, we do realise that rat multiplication continues to keep pace with our efforts and we are hard put to it when so many harbourages abound, so many old buildings exist which are dilapidated and actually falling to pieces, and so much foodstuff is thrown or left about for rats to feed on. Every effort is made to get old buildings rat-proofed and to see to it that all new buildings are so constructed that harbourages for rats will not occur, but due to the acute housing situation and to the fact that nearly all buildings in the urban sanitary district are old and

getting older and more dilapidated with each succeeding day, and that landlords are loth to effect repairs when they are so anxious to rebuild if and when they can get their tenants out, it is a matter of great difficulty to get rat-proofing done.

DESTRUCTION OF RATS AND MICE, 1954						
Rats caught by trappers	...	...	...	...	...	33,710
Rats bought	...	...	...	...	...	—
Total	...	...	...	...	...	33,710
Mice caught and destroyed	...	...	...	...	...	9,636

EXAMINATION OF RATS BY GOVERNMENT BACTERIOLOGISTS					
Rats examined for plague	...	...	...	...	33,710
Rats found infected with plague	...	...	...	...	—
Immature rats not examined	...	...	...	...	—

SPECIES					
			<i>Decumanus</i>	<i>Rattus</i>	Total
Males	...	...	9,703	1,374	11,077
Females	...	...	19,326	3,307	22,633
Total	...	...	29,029	4,681	33,710

Anti-Mosquito Measures

The Anti-Mosquito Unit of the Public Health Department in accordance with a plan agreed upon with the Malaria Division of the Health Department of Government, commenced in January, 1954, the second cycle of the residual DDT house spraying programme for the City and had succeeded in getting a large number of houses sprayed, without the legislative measures necessary to enforce compliance, and as a direct consequence with the usual crop of objections on the part of house-holders that I have recorded in my last annual report. The work was slow uphill work and in addition we were without the active help of the spraying teams of the Malaria Division who were now actively engaged in spraying operations in the other parts of the Colony, though we always had, of course, at our disposal the advice and co-operation of the Government Malariologist and his assistant.

By about the end of April, however, rumours of the possibility of an outbreak of yellow fever became insistent and in May a proven case of yellow fever arising in the forest areas north of the Arima District was recorded, the first case of yellow fever in the Colony for a period of well nigh 40 years.

Other cases of what must be called jungle yellow fever were next reported in the forest areas of the southern and eastern parts of the Colony, but in August there occurred in the peripheral limits of the City a case which was proved to be yellow fever and which had no apparent connection with the forest areas of the Colony. It had, therefore, to be assumed that the infection in this case was *aedes* transmitted and this being the first urban case of yellow fever it was notified to the World Health Organisation, and Port-of-Spain and its environs were, in accordance with international requirements, declared to be a "yellow fever infected" area.

At once, yellow fever being a dangerous infectious disease, all measures directed to the checking of the spread of the disease and its elimination were vested, in accordance with the terms of section 105 of the Public Health Ordinance, Ch. 12. No. 4, in the Central Board of Health and the Anti-Mosquito Unit of the Public Health Department came by agreement under the direction and supervision of the Malaria Division of the Health Department of Government, which Division was put in executive charge of the intensified measures of the anti-yellow fever campaign ordered to be put into immediate effect by the Central Board of Health.

Control and discipline remained with the Local Sanitary Authority whose employees the Anti-Mosquito Unit remained and who continued to be responsible for their salaries and wages.

This arrangement worked well and smoothly and the Sanitary Inspector in charge of the Unit became one of the 4 Sanitary Inspectors who were put in executive charge of the intensified campaign.

The Yellow Fever Regulations 1954 were quickly enacted and three teams of sprayers executed in two months the spraying of all houses within the Urban Sanitary District with DDT solution; 11,048 buildings housing a population of 111,639 persons were successfully dealt with. Very little inconvenience was caused the general public and objections were comparatively few indeed, but amicably overcome in face of the provisions of the Yellow Fever Regulations. At the same time the work of basic sanitation and environmental hygiene was intensified as it was realised that without a general clearance of potential water containers, which are so prevalent in nearly all premises within the City and which are thrown about indiscriminately by all residents, the work of *aedes* eradication would be greatly impeded, if not rendered altogether impossible. Three clearance teams were organised for this work and the scavenging service was augmented and intensified to deal with the large accumulations of tins, coconut shells, old tyres and other water containers, which were collected by these teams and brought out to the streets and lanes for disposal.

When the house spraying programme was completed, the spraymen were put to perifocal work in which all possible water holding receptacles inside and outside the buildings were treated with DDT emulsion, and at the time of writing this report the work continues to progress actively, though it must be recorded that objections are growing more and more frequent in the better class districts to this work especially that part of it which takes the operative inside the building but without which, of course, the value of the whole project would be nullified.

Fortunately no more cases occurred within the limits of the City and after a period of three months the stigma of being a "yellow fever infected area" was removed though the label of being a "yellow fever receptive area" still remains. This label will not be removed until an *aedes* index of less than 1 is consistently recorded for a period of at least one year.

The area of the Port of Port-of-Spain and the greater part of the central and down-town areas of the City have remained free of *aedes aegypti* larvae and have as a result registered an index of zero for long periods, but the areas on the outskirts of the City in the northern, eastern and southern sub-districts vary in direct ratio to the prevalence of water containing receptacles scattered about the area. A campaign of education of the residents of these areas is essential if this indiscriminate dumping of tins, coconut shells and other potential water containers is to cease, and at the time of writing such a campaign has been organised and is actively under way in the St. James area.

LARVAL INDEX

*Premises with mosquito larvae
per cent. of number visited*

Yearly average	1938-1942	...	...	...	...	...	2.1
Year	1943	...	...	...	...	...	3.3
	1944	...	...	...	...	...	5.4
	1945	...	...	...	...	...	6.9
	1946	...	...	...	...	...	7.3
	1947	...	...	...	...	...	5.8
	1948	...	...	...	...	...	4.4
	1949	...	...	...	...	...	4.4
	1950	...	...	...	...	...	4.6
	1951	...	...	...	...	...	4.5
	1952	...	...	...	...	...	3.8
	1953	...	...	...	...	...	4.8
	1954	...	...	...	...	...	1.5

INSPECTION OF EAVES GUTTERS, ETC., 1954

Number of inspections of premises	...	...	...	...	33,267
Number of inspections of eaves gutters	...	...	...	...	18,392
Number of occasions found in good order	...	...	...	...	17,030
Number of occasions found defective	...	...	...	...	1,362
Number of occasions found containing water only	...	...	...	...	1,105
Number of occasions found containing water and larvae	...	...	...	...	219
*Number of occasions mosquito larvae were found in tubs, antiformicas, tin cans, &c.	...	...	...	...	1,749
Yards cleared of receptacles	...	...	...	...	14,706

N.B.—*Occasions on which mosquito larvae were found by sanitary inspectors, during the course of 80,771 inspections of premises, are included in above figure.

Premises used for human habitation, Houses let in Lodgings, Common Lodging Houses

The housing situation remains intensely acute and housing accommodation within the limits of the City remains strictly limited. In fact dwelling houses are at such a premium nowadays that "key money" is the rule rather than the exception, to such an extent that a few flagrant cases have been ventilated in the law courts.

Very little building of new dwelling houses has taken place and dwelling houses for the poorer section of the community particularly are conspicuous by their absence. In fact this latter is such a rare commodity that it is not unusual to see members of the working classes living in improvised shelters under houses, in hastily built shacks, in backyards and sometimes even in squares and on any vacant open space. Besides existing dwellings, which are almost invariably occupied as barracks, and even the few barrack ranges that still exist are so overcrowded and as a result so inadequately provided with sanitary conveniences and the basic requirements of decent living that there is the insistent fear that if a case of infectious disease were to occur in these areas unless prompt and effective isolation and immediate disinfection were to take place, it would certainly give rise to a crop of cases and possibly an epidemic. In fact it is remarkable how one case of chicken pox occurring in a cottage dwelling in the East Dry River District does give rise to so many cases in the same household and also in the houses adjoining.

Besides, houses generally in the Urban Sanitary District are in such a state of disrepair and are so often teeming with sundry and varied defects that it is well nigh impossible to get them repaired or patched up unless extensive works which so often result in the entire reconstruction of the building are executed. It is indeed difficult to get landlords to comply with Statutory Notices to stop leaks, repair walls, replace portion of floors, or to provide adequate sanitary conveniences when it is clear that these works are tantamount to the reconstruction of the building and when the landlords themselves have in their possession approved plans for completely rebuilding, if only it were possible for them to get the tenants to vacate the premises.

In the circumstances all that can reasonably be aimed at and all that can with goodwill be achieved is what can be considered to be basic sanitary requirements and amount usually to the stopping of leaks, the reconstruction of steps, the relaying of drains and the putting of the conveniences in good sanitary condition, and without goodwill recourse must be had to the process of the law to get even these directions complied with.

It is true that buildings are going up and a visitor to the City could point to a number of places where work of construction is actively progressing, but invariably these are business places in the down-town area which are being extensively repaired and are actually being reconstructed, thanks to profits made during World War II. In point of fact nearly every business place in the southern part of the City has either been repaired or reconstructed and present an attractive up-to-date modern appearance. Elsewhere in the City and particularly in the districts in the periphery, it is the exception rather than the rule to see a new dwelling house being put up on a lot of land previously unbuilt upon. The position has reached such a state that only an expensive long-term housing plan is likely to meet the situation, but fortunately Government is fully seized of the situation and are proposing legislation that will lead to housing loans on an easy long-term payment basis.

The Planning and Housing Commission whose main function is to provide housing accommodation for members of the working classes and which, operating through its Slum Clearance Committee, has succeeded in clearing some of the slums in the south-eastern section of the City, has had its activities restricted through lack of funds and have been able to clear only small areas in the declared Slum Clearance Areas replacing old slum dwellings by modern up-to-date three-storey flats. There is, however, so much yet to be done and so many people seeking and waiting for accommodation that the Committee finds itself severely handicapped by the small sum of \$200,000 which so far has been allocated each year for slum clearance work in Port-of-Spain and San Fernando, and even the flats which have been built are beginning already to exhibit signs of wear and tear and of serious deterioration in places.

Shanty Town

Shanty Town has been the subject of special attention during the year under report and special visits have been paid to both areas, to the area within the limits of the City and to that just outside, which latter is, of course, the larger and more dangerous of the two.

The general lack of sanitation and the indiscriminate dumping of refuse and faecal matter in yards and open spaces has been observed due to the lack of proper sanitary conveniences and to the complete absence of scavenging which characterise this area. At the moment of writing some action has been taken and all new shanties in the course of construction have been pulled down and no new shanties permitted to be erected. But the clearing of the entire area and the rehousing of the existing population under more sanitary and, therefore, less dangerous conditions still remains a problem of the first magnitude.

The activities of the residents of this area are a source of great anxiety to the Public Health Department as they dig for bits and pieces on the Dump nearby, collect bottles, &c., and undo the work of controlled tipping, scratching away the earth with which the refuse is covered. Besides mosquito nuisance and fly nuisance are a constant source of worry, and a menace to the surrounding area.

It is imperative that this whole area of Shanty Town be cleared, the inhabitants rehoused and the land put to much better use than what obtains at present.

VITAL STATISTICS OF THE DISTRICT

Comparative Summary of Vital Statistics

(Unless otherwise stated, rates are per 100,000 population)

Area of City—acres (pastures and open spaces included)	1921	1952	1953	1954
Estimated population (mean)...	61,386	109,384	111,150	114,150
Density of population (persons per acre)	34.2	43	44	45
Total live births	1,687	4,115	4,499	5,403
Birth rate	2,728	3,761	4,048	4,733
Still births registered	154	207	225	268
*Still birth rate	91.3	50.30	50.01	49.60
Total deaths	1,659	1,094	1,108	1,028
Death rate	2,683	1,000	997	901
Natural increase of population	28	3,021	3,391	4,375
Deaths under one year	287	137	157	150
*Infant mortality rate	170.12	33.29	34.90	27.76
*Maternal mortality rate	—	1.70	2.22	2.59
<i>Death Rates :</i>				
Notifiable infectious diseases	621	111	75	77
Pulmonary tuberculosis	249	26	18	19
Tuberculosis (other forms)	26	11	5	3
Enteric fever	125	7	3	3
Pneumonia (all forms)	197	66	47	51
Bronchitis	136	16	14	20
Diphtheria	2	1	1	1
Malaria	89	—	—	1
Syphilis	21	5	6	7
Diarrhoea and enteritis	191	36	51	32
Influenza	26	—	—	1
Ankylostomiasis	15	—	1	2
Bright's disease and nephritis	209	25	22	22
Diseases of the heart and blood vessels	265	226	269	230
Diseases of the nervous system including cerebral haemorrhage	170	129	94	133
Cancer and other malignant diseases ...	63	82	102	84

*Per 1,000 births.

Census population of City—April, 1946: 93,198.

Colony's Mean Population: 697,550.

Acreage and Population

The acreage of the City remains the same as it was last year, viz. 2,550 acres, no new addition having been made to the City.

In fact, since the inclusion of the 168 acres of the reclaimed lands South of Wrightson Road, in the King's Wharf and Docksite Areas, which made the southern boundary of the City "the Sea wherever it is and wherever it is likely to be in the future", no new addition to the limits of the City has been made.

The population of the City, however, has increased by 3,000 souls and the mean population, i.e. the population at the end of June, 1954, is now estimated to be 114,150. The natural increase of population worked out, however, at 4,375 souls as compared with 3,391 in the year 1953. These figures are, of course, based on a formula which has been worked out in the Registrar General's Office and must be taken as a "working figure" the accuracy of which is not absolute. Only the actual counting of population, which a census permits, can furnish the exact figure of resident population; as the next census year should be 1956 it is to be hoped that we shall next year be in a position to know what is the exact figure for the resident population of the City of Port-of-Spain. The last census held in 1946 gave a figure of 93,198 as the resident population of the City for 1946.

Births and Birth Rates

Five thousand four hundred and three births were registered as having taken place within the limits of the City during the year under report; these include births which have taken place at the Colonial Hospital, Port-of-Spain, and in the returns from which the addresses of parents are not stated. Many births take place, of course, at the Maternity Ward, Colonial Hospital, and a large number of these mothers do not reside within the limits of the City. These births should be allocated to the country areas from which the mothers came. During the past five years there has been a definite increase in the birth rate with a corresponding decline in the death rate.

Deaths and Death Rates

Deaths during 1954 numbered 1,028 as compared with 1,108 in the year 1953 giving a death rate of 901 compared with 997 per 100,000 population in the previous year 1953. There has been a consistent fall in the death rate since 1943, a fact to which reference has been made in previous annual reports. This is, of course, the result of consistent efforts on the part of public health departments and hospitals, child welfare clinics, and the general practitioner services which have all combined to achieve better sanitation and a higher standard of environmental hygiene, better personal health, the result of a higher level of health consciousness in the community, and of more adequate and more generous social services, as well as improved hospital services and an earlier resort to them.

If these deaths are critically analysed and the number occurring in the various sub-districts of the City re-distributed to the districts to which they rightly belong it will be observed that the lowest death rate occurred in the Woodbrook sub-district to be followed next in order by the City proper.

The St. James District claimed the largest number of deaths but this is due, as I have pointed out repeatedly, to the situation in this sub-district of the House of Refuge for aged and infirm people.

In so far as age distribution of deaths is concerned, analysis of the table hereunder listed will demonstrate the fact that deaths over 60 years of age accounted for 47.08 per cent. of the total deaths; since the year 1943 the number of deaths occurring in the age period over 60 has continued to increase year by year.

Births 1954				Deaths 1954			
Males	Females	Both Sexes	Birth Rate per 100,000 population	Males	Females	Both Sexes	Death Rate per 100,000 population
2,835	2,568	5,403	4,733	507	521	1,028	901

Deaths in Sub-Districts of the City 1954

SUB-DISTRICT			Mean Population	DEATHS				Total Deaths Sub- Districts	Rate per 100,000 population
				PLACE OF OCCURRENCE					
				Home, &c.	Colonial Hospital	Royal Gaol	House of Refuge		
City Proper	...	...	39,274	142	108	3	—	253	645
St. Clair	...	...	1,914	17	3	—	—	20	1,045
East Dry River	...	...	25,336	108	114	—	—	222	876
Belmont	...	...	19,738	95	66	—	—	161	816
Woodbrook	...	...	14,485	49	36	—	—	85	587
St. James	...	...	13,403	56	56	—	175	287	2,141
TOTAL	...	...	114,150	467	383	3	175	1,028	901

Chart A
Port of Spain
Birth Rates and Death Rates per 100,000 Population 1920 - 1954

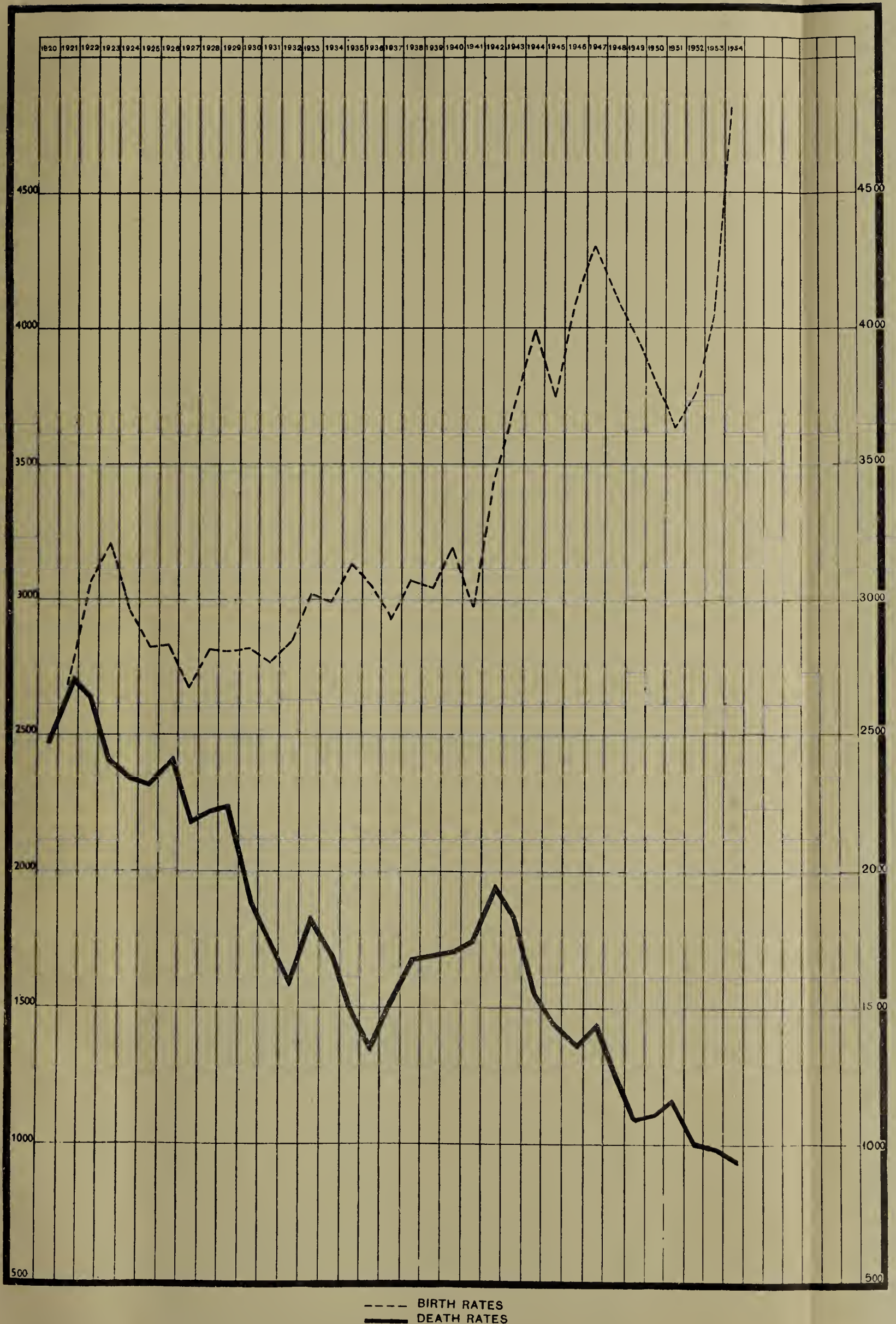
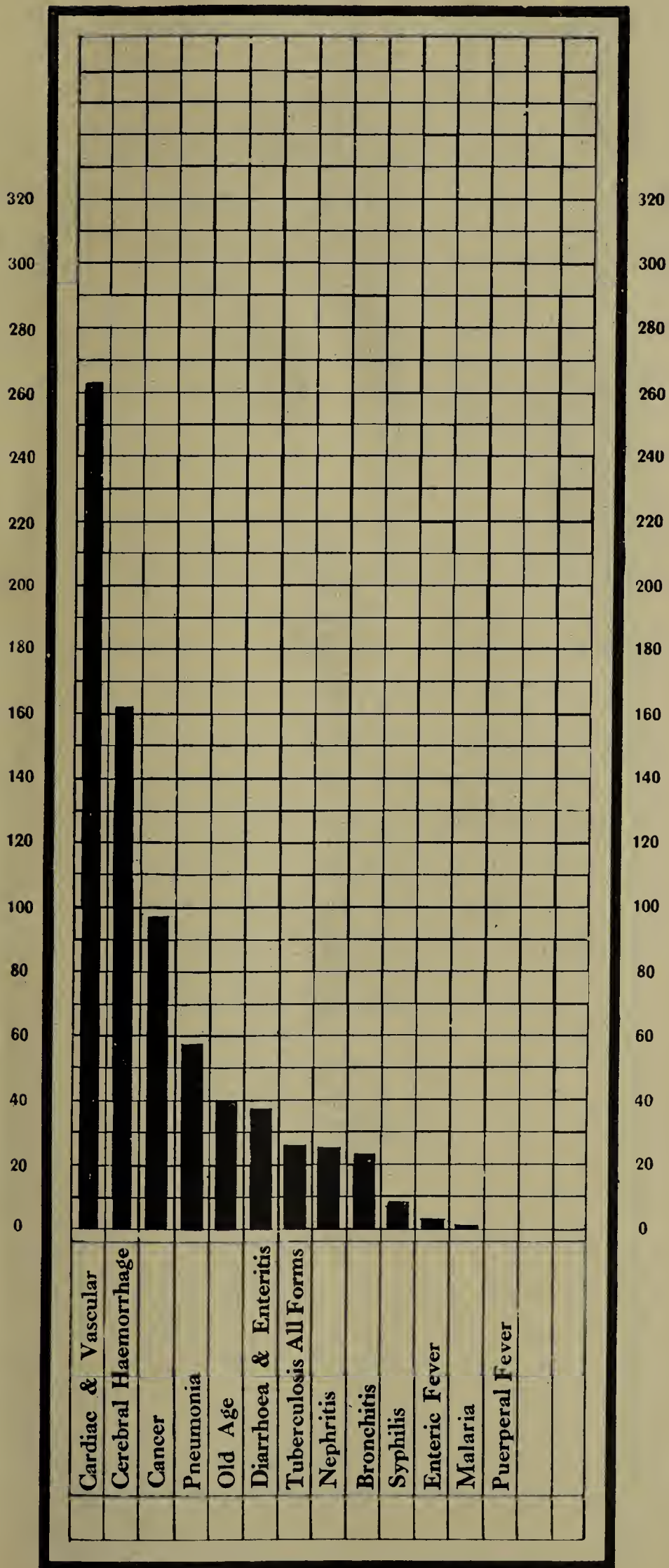


Chart B Port-of-Spain

Principal Individual CAUSES OF DEATHS 1954



Age Distribution of Deaths 1954

PERIOD					Males	Females	Both Sexes	Percentage of Total Mortality at All Ages
Under 1 year	...	...	...	...	88	62	150	14.59
1- 5 years	...	...	...	...	16	20	36	3.50
6-10 do.	...	...	...	...	7	1	8	0.78
11-20 do.	...	...	...	...	5	10	15	1.46
21-30 do.	...	...	...	...	8	12	20	1.95
31-40 do.	...	...	...	...	36	27	63	6.13
41-50 do.	...	...	...	...	48	57	105	10.21
51-60 do.	...	...	...	...	84	63	147	14.30
Over 60 years	...	...	...	...	215	269	484	47.08
TOTAL					507	521	1,028	—

Comparison of Deaths at different Age Periods, 1928-54

PERIOD	Total Deaths at All Ages	DEATHS UNDER 1 YEAR		DEATHS 1-5 YEARS		DEATHS 56-60 YEARS		DEATHS OVER 60 YEARS	
		No.	Percentage of Total Deaths	No.	Percentage of Total Deaths	No.	Percentage of Total Deaths	No.	Percentage of Total Deaths
Yearly Averages									
1928-32	1,327	230	17.42	81	6.06	94	7.09	336	25.10
1933-37	1,167	215	18.24	62	5.29	87	7.57	289	24.74
1938-42	1,622	275	16.85	68	4.21	117	7.20	566	34.92
1943	1,862	283	15.20	102	5.48	131	7.04	674	36.20
1944	1,620	248	15.31	77	4.75	106	6.54	598	36.92
1945	1,526	239	15.66	71	4.65	86	5.64	561	36.76
1946	1,396	241	17.26	77	5.52	95	6.81	493	35.32
1947	1,385	231	16.68	49	3.54	92	6.64	536	38.70
1948	1,191	177	14.86	45	3.78	66	5.54	491	41.23
1949	1,147	171	14.91	57	4.97	85	7.41	524	45.68
1950	1,170	168	14.36	75	6.41	76	6.50	526	44.96
1951	1,243	167	13.43	43	3.46	79	6.35	602	48.43
1952	1,094	137	12.52	48	4.39	77	7.04	540	49.36
1953	1,108	157	14.17	41	3.70	67	6.05	524	47.29
1954	1,028	150	14.59	36	3.50	79	7.69	484	47.08

Causes of Deaths

Listed below is a table showing the causes of deaths as they affected the inhabitants of the City during the year 1954.

The causes are classified in accordance with the Intermediate List (150 causes) of the International Statistical Classification.

It will be seen that of the 1,088 deaths recorded, VII Diseases of the Circulatory System claimed the highest, namely 263 deaths, followed next by VI Diseases of the Nervous System and Sensory Organs with 142 deaths, and II Neoplasms occupying third place with 96 deaths.

Notifiable Infectious Diseases claimed 88 deaths as compared with 83 in the previous year. The figure of 263 deaths from Diseases of the Circulatory System compares not unfavourably with 299 deaths in 1953, and II Neoplasms with 96 deaths showed a decline in mortality when compared with the 113 deaths that occurred in the year 1953. Of the 88 deaths certified to Notifiable Infectious Diseases 50 were due to pneumonia and 22 to pulmonary tuberculosis.

This represents the usual picture we have grown accustomed to during the last 15 years with the exception of pulmonary tuberculosis in which the death rate has shown a steep decline beginning with the year 1949 when the deaths registered were nearly one-half of those recorded the year before, i.e. in 1948.

Causes of Deaths 1954—(International Classification)

Intermediate List No.	Cause Groups	Detailed List No.	Total
<i>I—Infective and Parasitic Diseases</i>			
A 1	Tuberculosis of respiratory system	001-008	22
A 2	Tuberculosis of meninges and central nervous system	010	1
A 3	Tuberculosis of intestines, peritoneum and mesenteric glands	011	1
A 4	Tuberculosis of bones and joints	012	—
A 5	Tuberculosis, other forms :		
	02 All other forms	014, 016-019	2
A 6	Congenital Syphilis	020	—
A 8	Tabes Dorsalis	024	—
A10	All other syphilis	026-029	8
A12	Typhoid fever	040	3
A13	02 Other Salmonella infections	042	1
A16	Dysentery, all forms :		
	01 Bacillary dysentery	045	2
	03 Other unspecified forms of dysentery	047, 048	—
A20	Septicaemia and pyaemia	053	—
A21	Diphtheria	055	1
A22	Whooping cough	056	2
A23	Meningococcal infections	057	2
A25	Leprosy	060	1
A26	Tetanus	061	5
A34	Infectious hepatitis	092	1
A37	05 Other and unspecified forms of malaria	113, 116, 117	1
A41	Ankylostomiasis	129	2
A43	All other diseases classified as infective and parasitic :		
	01 Lymphogranuloma venereum	037	1
	02 Granuloma inguinale, venereal	038	—
	25 All other diseases classified as infective and parasitic	132-134	2

Causes of Death—(International Classification)—Continued

Intermediate List No.	Cause Groups	Detailed List No.	Total
<i>II—Neoplasms</i>			
A44	Malignant neoplasm of buccal cavity and pharynx	140-148	4
A45	Malignant neoplasm of oesophagus	150	3
A46	Malignant neoplasm of stomach	151	18
A47	Malignant neoplasm of intestine, except rectum	152, 153	13
A48	Malignant neoplasm of rectum	154	—
A49	Malignant neoplasm of larynx	161	2
A50	Malignant neoplasm of trachea and of bronchus and lung not specified as secondary	162, 163	6
A51	Malignant neoplasm of breast	170	8
A52	Malignant neoplasm of cervix uteri	171	8
A53	Malignant neoplasm of other unspecified parts of uterus	172-174	9
A54	Malignant neoplasm of prostate	177	1
A55	Malignant neoplasm of skin	190-191	—
A56	Malignant neoplasm of bone and connective tissue	196-197	—
A57	Malignant neoplasm of all other and unspecified sites	155-160 175, 176 198, 199	22
A58	Leukaemia and Aleukaemia	204	—
A59	Lymphosarcoma and other neoplasms of lymphatic system	200-203 205	2
A60	Benign neoplasms and neoplasms of unspecified nature	210-239	2
<i>III—Allergic, Endocrine System, Metabolic, and Nutritional Diseases</i>			
A62	Thyrotoxicosis with or without goitre	252	—
A63	Diabetes mellitus	260	30
A64	Avitaminosis and other deficiency states : 01 Beri beri 05 Other deficiency states	280 283-286	1 4
<i>IV—Diseases of the Blood and Blood-Forming Organs</i>			
A65	Anaemias : 01 Pernicious and other hyperchromic anaemias 03 Other specified and unspecified anaemias	290 292, 293	— 6
A66	Allergic disorders, all other endocrine, metabolic and blood diseases : 01 Asthma 02 All other allergic disorders, endocrine, metabolic and blood diseases	241 253	5 2
<i>V—Mental, Psychoneurotic and Personality Disorders</i>			
A68	Psychoneuroses and disorders of personality	310-324 326	—
<i>VI—Diseases of the Nervous System and Sensory Organs</i>			
A70	Vascular lesions affecting central nervous system	330-334	136
A71	Nonmeningococcal meningitis	340	3
A72	Multiple sclerosis	345	—
A73	Epilepsy	353	3
A77	02 Otitis media and mastoiditis	391-393	1
A78	All other diseases of the nervous system and sense organs	341-344 350-352 354-357 360-369 395-398	10
<i>VII—Diseases of the Circulatory System</i>			
A79	Rheumatic fever	400-402	1
A80	Chronic rheumatic heart disease	410-416	5
A81	Arteriosclerotic and degenerative heart disease	420-422	141
A82	Other diseases of the heart	430-434	38
A83	Hypertension with heart disease	440-443	39
A84	Hypertension without mention of heart	444-447	18
A85	Diseases of arteries	450-456	19
A86	Other diseases of the circulatory system	460-468	2
<i>VIII—Diseases of the Respiratory System</i>			
A88	Influenza	480-483	1
A89	Lobar pneumonia	490	9
A90	Broncho pneumonia	491	35
A91	Primary atypical, other, and unspecified pneumonia	492, 493	14
A92	Acute bronchitis	500	16
A93	Bronchitis, chronic and unqualified	501, 502	7
A95	Empyema and abscess of lung	518, 521	—
A96	Pleurisy	519	2
A97	02 All other respiratory diseases	511-517 520-522 524-527	6

Causes of Death—(International Classification)—Continued

Intermediate List No.	Cause Groups	Detailed List No.	Total
<i>IX—Diseases of the Digestive System</i>			
A99	Ulcer of stomach	540	1
A100	Ulcer of duodenum	541	3
A101	Gastritis and duodenitis	543	—
A102	Appendicitis	550-553	3
A103	Intestinal obstruction and hernia	570	6
A104	Gastro-enteritis and colitis, except diarrhoea of the newborn :		
	01 Gastro-enteritis and colitis between 4 weeks and 2 years ...	571.0	26
	02 Gastro-enteritis and colitis, ages 2 years and over... ..	571.1	5
	03 Chronic Enteritis and ulcerative colitis	572	3
A105	Cirrhosis of Liver	581	15
A106	01 Cholelithiasis	584	1
	02 Cholecystitis without mention of calculi	585	1
A107	Other diseases of digestive system	536-539	8
		542-544	
		545	
		573-580	
		582-583	
		586-587	
<i>X—Diseases of the Genito-Urinary System</i>			
A108	Acute Nephritis	590	—
A109	Chronic and other unspecified nephritis	591-594	25
A110	Infections of kidneys	600	5
A111	Calculi of urinary system	602-604	—
A112	Hyperplasia of prostate	610	8
A114	03 All other diseases of the genito-urinary system	601-603	10
		605-609	
		611, 612	
		614-617	
		622-623	
		635-637	
<i>XI—Deliveries and Complications of Pregnancy, Childbirth, and the Puerperium</i>			
A116	01 Puerperal eclampsia	685	1
	02 All other toxæmias of pregnancy and the puerperium ...	642, 652, 686	2
A117	Haemorrhage of pregnancy and childbirth :		
	01 Placenta prævia	643	1
	02 Haemorrhage of pregnancy	644, 670	2
A119	Abortion with sepsis	651	6
A120	All other complications of pregnancy and childbirth :		
	01 Ectopic pregnancy	645	1
	03 Delivery Complications	673-675	1
<i>XII—Diseases of the Skin and Cellular Tissues</i>			
A121	Infections of skin and subcutaneous tissue	690-698	1
<i>XIII—Diseases of the Bones and Organs of Movement</i>			
A122	Arthritis and spondylitis	720-725	9
A123	Rheumatism unspecified	726-727	—
A126	All other diseases of the skin and musculoskeletal system :		
	01 Chronic ulcer of skin	715	1
	02 All other diseases of skin	716	1
	03 All other diseases of musculoskeletal system	731-736	1
		738-744	
<i>XIV—Congenital Malformations</i>			
A127	Spina bifida and meningocele	751	1
A128	Congenital malformation of Circulatory System	754	3
A129	All other congenital malformations	750-752	3
<i>XV—Certain Diseases of Early Infancy</i>			
A130	Birth Injuries	760-761	1
A131	Post-natal asphyxia and atelectasis	762	18
A132	Infections of the newborn :		
	01 Diarrhoea of newborn (under 4 weeks)	764	2
	04 Other infections of newborn	763-766	—
A133	Haemolytic disease of newborn	770	3
A134	All other defined diseases of early infancy :		
	02 Haemorrhagic disease of newborn	771	—
	03 Nutritional maladjustment	772	9
A135	Ill-defined diseases peculiar to early infancy and immaturity unqualified	773, 776	49
<i>XVI—Symptoms, Senility and Ill-defined Conditions</i>			
A136	Senility without mention of psychosis	794	40
A137	03 Certain symptoms referable to nervous system and special senses	780	1
	06 Symptoms referable to respiratory system	783	—
	08 Symptoms referable to abdomen and lower gastro-intestinal system	785	4
	12 Nervousness and debility	790	1
	14 Uraemia unqualified	792	4
	15 Ill-defined and unknown causes of mortality	795	—
	16 Other general symptoms	788.1-788.9	—

Causes of Death 1954—(International Classification)—Continued

Intermediate List No.	Cause Groups						Detailed List No.	Total
	<i>"E" XVII—Code Alternative Classification of Accidents, Poisonings, and Violence (External Cause)</i>							
AE138	Motor Vehicles Accident	...	...	...	...	...	E810-E825	3
AE140	Accidental poisoning	...	...	...	...	...	E870-E985	1
AE142	Accident caused by machinery	...	...	...	...	...	E912	1
AE146	Accidental drowning	...	...	...	...	...	E929	1
AE147	02 Foreign body entering other orifice	...	...	...	...	...	E928	3
	05 All other accidental causes	...	...	...	...	...	E910-E911	—
AE148	Suicide, self-inflicted injury	...	...	...	...	...	E970-E979	2
AE149	Homicide and Judicial execution	...	...	...	...	...	E980-E985	1
	<i>"N" XVII—Code Alternative Classification of Accidents, Poisonings, and Violence (Nature of Injury)</i>							
AN138	Fracture of skull	...	...	...	...	...	N800-N804	5
AN139	Fracture of spine and trunk	...	...	...	...	...	N805-N809	1
AN140	Fracture of limbs	...	...	...	...	...	N810-N829	5
AN143	Head injury (excluding fracture)	...	...	...	...	...	N850-N856	1
AN144	Internal injury of chest, abdomen and pelvis	...	...	...	...	...	N860-N869	—
AN145	Laceration and open wounds	...	...	...	...	...	N870-N908	1
AN148	Burns	...	...	...	...	...	N940-N949	1
AN149	Effects of poisons	...	...	...	...	...	N960-N979	5
AN150	All other and unspecified effects of external causes	...	...	...	...	...	N950-N959 N980-N999	—
	GRAND TOTAL	...	...	...	...	...		1,028

Infant Mortality

The infant mortality figure of 27.76 per 1,000 live births represents the lowest infant mortality rate that has ever been recorded in the annals of the history of the Local Sanitary Authority which date back to the year 1917 when the Local Authority was established by the Public Health Ordinance, and when it was made possible for the first time to keep accurate records and to compile statistics that could be considered reasonably accurate.

This rate is based on the number of live births that occur during the year and the data required are so easy to collect from the birth and death returns of the various District Registrars and are so comparatively free from the possibility of serious error that a good deal of reliance can be placed on the figure that represents the infant mortality rate.

This is a matter of some practical importance as the infant mortality rate is a reflection of various influences affecting the public health of the community where the births and deaths of the infants occurred. For instance it bears some relation to and is affected by, the general state of sanitation and environmental hygiene of the community, it reflects fairly accurately the care, attention and skill of the medical services that are available to the expectant, lying-in and nursing mother; it indicates in one way or other the state of education of the parents and family, and it is also affected by the state of the social services which obtain in the particular community.

It is a matter for gratification, therefore, that this low figure for 1954 can be recorded, but it has been won only by consistent hard work and strenuous effort throughout the years and an examination of the table listed hereunder will serve to emphasize the fact that the infant mortality rate which at one time viz: 1917 was 232.77 has been reduced from year to year to the figure 27.76 which it was in the year under report. It has, it will be observed, taken 40 years almost, to reduce the rate to one-tenth of what it was in the year 1917.

All those various organisations which are concerned with infant and child welfare: the Child Welfare League, the Government Health Department, the Public Health Department of the City can afford to take justifiable pride in the work that has been done during the past 37 years, and the figure of 27.76 is an index of the steady, hard and conscientious work that has been put into this particular branch of public health work.

Corresponding with the low infant mortality rate is a lowered neo-natal mortality rate or in other words the number of deaths of infants under one month showed a welcome decline when their deaths are compared with the number of live births that took place during the year under report. This is a matter of paramount importance, as it is here, viz: to the neo-natal mortality, that attention must be specially directed if any further substantial decline in infant mortality is to be achieved. The neo-natal mortality is a function of those diseases, accidents and injuries that occur in the ante-natal and intra-natal period particularly and it is during these periods of the expectant mother's life that the greatest care must be exercised and prompt and skilled treatment applied if more lives of these mothers and infants are to be saved.

Births and Deaths of Infants under 1 year, 1917-54

Period					No. of Births	No. of Deaths under 1 year	Infant Mortality Rate
Year 1917	...	...	...	...	1,770	412	232.77
Yearly Averages :							
1918-22	...	...	...	...	1,700	310	182.94
1923-27	...	...	...	...	1,862	274	146.96
1928-32	...	...	...	...	1,925	230	119.13
1933-37	...	...	...	...	2,248	215	96.05
1938-42	...	...	...	...	2,913	275	93.84
Average 1918-42	...	...	...	...	2,130	261	127.78
Year 1943	...	...	...	...	3,751	283	75.45
1944	...	...	...	...	4,161	248	59.60
1945	...	...	...	...	3,972	239	60.17
1946	...	...	...	...	4,133	241	58.31
1947	...	...	...	...	4,113	231	56.16
1948	...	...	...	...	4,053	177	43.67
1949	...	...	...	...	4,037	171	42.36
1950	...	...	...	...	3,905	168	43.02
1951	...	...	...	...	3,982	167	41.94
1952	...	...	...	...	4,115	137	33.29
1953	...	...	...	...	4,499	157	34.90
1954	...	...	...	...	5,403	150	27.76

Causes of Deaths under 1 year, 1954

Causes of Deaths					Neo-Natal Deaths under 1 month	Deaths 1 month and under 1 year	Total	Percentage of Total Infant Mortality
<i>Ante-Natal Causes :</i>								
Prematurity	...	...	...	...	47	1	48	
Marasmus	...	...	...	...	—	2	2	
Malnutrition	...	...	...	...	2	5	7	
Congenital Abnormalities	...	...	...	...	2	2	4	
Congenital Debility	...	...	...	...	—	—	—
Congenital Heart Disease	...	...	...	...	2	1	3	
Anaemia	...	...	...	...	—	4	4	
Total Ante-Natal	...	...	...	...	53	15	68	45.33
<i>Intra-Natal Causes :</i>								
Haemorrhage	...	...	...	...	1	—	1	
Total Intra-Natal	...	...	...	...	1	—	1	.67
<i>Post-Natal Causes :</i>								
Asphyxia and Atelectasis	...	...	...	...	17	1	18	
Pneumonia	...	...	...	...	3	14	17	
Diarrhoea and Enteritis	...	...	...	...	4	17	21	
Bronchitis	...	...	...	...	1	9	10	
Icterus Neonatorum	...	...	...	...	3	2	5	
Meningitis	...	...	...	...	1	2	3	
Tuberculosis	...	...	...	...	—	2	2	
Diphtheria	...	...	...	...	—	1	1	
Other Post-Natal Causes	...	...	...	...	1	3	4	
Total Post-Natal	...	...	...	...	30	51	81	54.00
GRAND TOTAL	...	...	...	...	84	66	* 750	

* M. 88 ; F. 62.

Duration of Life of Infants dying under one year of Age, 1954

Duration of Life	No. of Infants	Percentage of total deaths under 1 year	Corresponding percentage 1953
Under 1 day	21	14.00	11.47
1 day and under 2 weeks	49	32.67	35.67
2 weeks and under 1 month	14	9.33	6.37
Total under 1 month	84	56.00	53.51
1 month to 3 months	20	13.33	12.10
Over 3 to 5 months	15	10.00	8.28
Over 5 to 7 months	16	10.67	10.83
Over 7 to 9 months	7	4.67	7.64
Over 9 to 11 months	8	5.33	7.64
Over 11 and under 1 year	—	—	—
TOTAL	150	—	—

Neo-Natal Mortality (Deaths under 1 month) 1930-1954

Period	No. of Deaths under 1 month	Percentage of total deaths under 1 year	Neo-Natal Mortality Rate per 1,000 Births
Yearly Average : 1930-34	90.6	38.60	44.03
Year 1935	91	50.28	39.24
1936	61	40.94	26.58
1937	110	46.41	48.39
1938	117	57.35	45.16
1939	122	50.41	44.33
Average 1935-39	100.2	49.08	40.74
Year 1940	132	45.36	44.94
1941	137	43.63	47.44
1942	134	41.62	39.42
1943	134	47.35	35.72
1944	117	47.18	28.12
1945	126	52.72	31.72
1946	136	56.43	32.91
1947	133	57.58	32.20
1948	76	42.94	18.75
1949	82	47.96	20.31
1950	82	48.82	21.00
1951	77	46.11	19.34
1952	60	43.79	14.58
1953	84	53.51	18.67
1954	84	56.00	15.55

Still Births

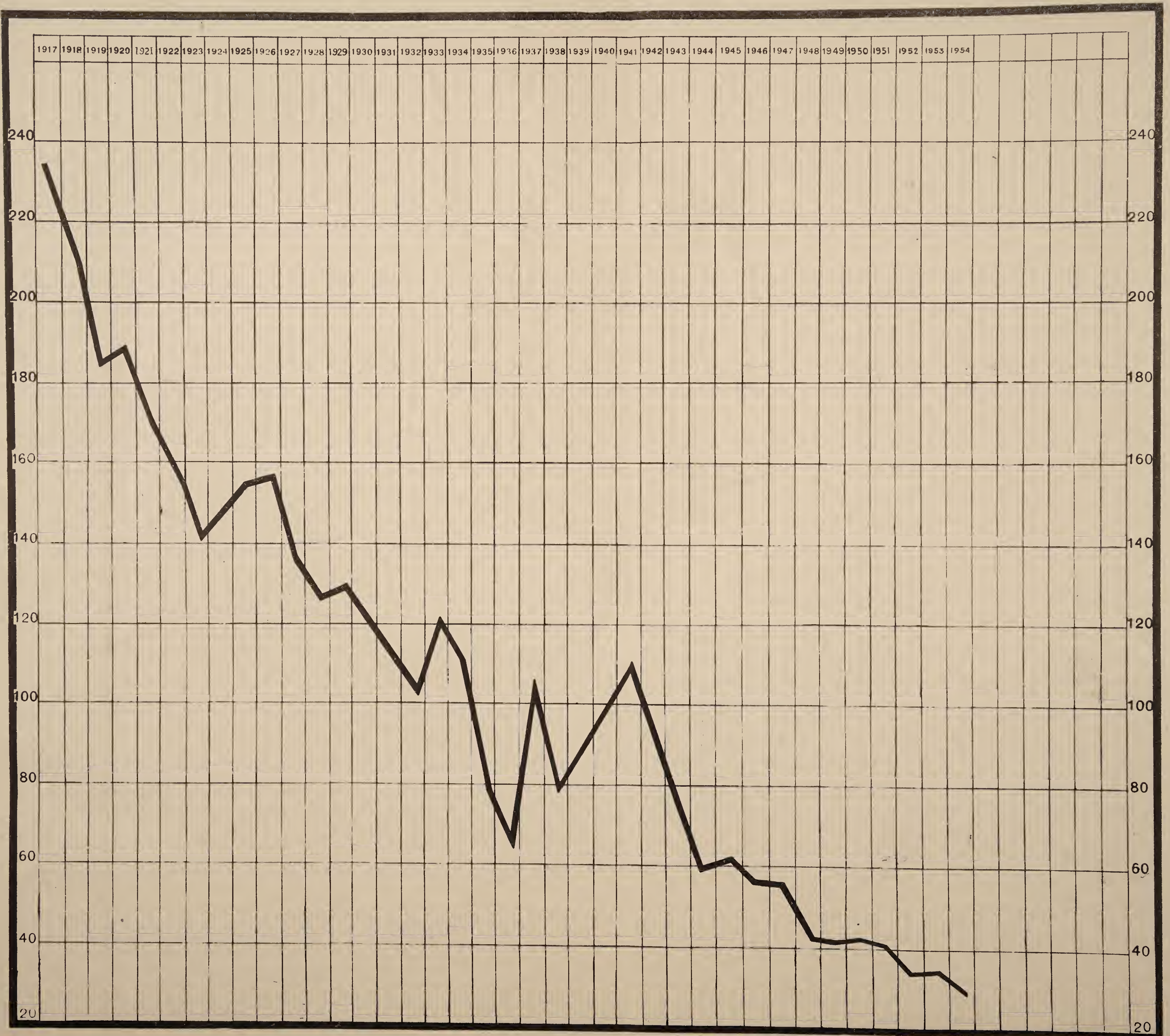
Whilst the infant mortality rate has shown a substantial decline throughout the years the same cannot be stated when consideration is given to the number of still births recorded at the Department. In fact the largest number of still births ever recorded was registered in the year 1954, viz., 268, which gives a rate of 49.60 per 1,000 live births. This is a most disturbing state of affairs and calls for greater study and research into the causes of the deaths of infants during the ante-natal and intra-natal periods. It is a matter that deserves the most serious consideration when nearly twice as many deaths of infants take place in their mothers' wombs as occur during the whole of the first year of extra-uterine life, and this loss of life should not be accepted with the complacency and *laissez faire* attitude with which it is usually accepted.

An active campaign of education as to the causes of still births, and skilled care, attention, and treatment should be brought to bear on this question of still births with a view to reducing this enormous wastage of human life.

Still Births 1954

Year	Total Still Births	Rate per 1,000 Live Births
1954	268	49.60
1953	225	50.01
1952	207	50.30
1951	193	48.47
1950	165	42.25
1949	244	60.44
1948	223	55.02
1947	220	53.49
1946	225	54.44
1945	224	56.39
1944	265	63.69
1943	230	61.32
1942	257	75.61
1941	211	73.06
1940	214	72.86
1939	190	69.04
1938	171	66.00

Chart C
Port of Spain
Infant Mortality Rates-per 1,000 Live Births 1917-1954



Maternal Mortality

Maternal Mortality showed no decline during the year under report. Fourteen mothers fell victim to what should be a normal physiological process, i.e. child bearing; 9 of these died as a result of the complications of child birth indicating the lack of skilled and prompt ante-natal supervision. This means that there are still a number of mothers who do not take advantage of the services of the various ante-natal clinics where these complications and abnormalities could be foreseen, and measures adopted whereby they could be given the requisite treatment at the earliest possible opportunity.

Causes of Maternal Deaths, 1954

Causes of Maternal Deaths	Under 16	16 to 25	26 to 35	36 and upwards	Total All Ages	Rate per 1,000 Births	
						1954	Average 1949-53
Puerperal Sepsis	—	—	—	—	—	—	0.14
Eclampsia	—	—	1	—	1	0.18	0.24
Haemorrhage	—	—	1	—	1	0.18	0.44
Pernicious Vomiting	—	—	—	—	—	—	—
*Other Causes	—	2	9	1	12	2.23	1.32
TOTAL	—	2	11	1	14	2.59	2.14

*Other causes include Delivery Complications, Placenta Praevia, Septic Abortion, Toxaemia of Pregnancy.

The Pre-School Child

Thirty-six children between the ages of 1 and 5 died during the year under report from causes the larger number of which could have been prevented if prompt and skilled care had been available.

Critical analysis of the causes hereunder listed makes this point superlatively clear. It is a matter for great regret that the pre-school children are still not subject to the care and control or given the treatment that they deserve at a time of life when disease or injury can have such a profound influence on the whole of the future life of the child.

After having been given the greatest care and attention during the first 12 or 18 months of post-natal life the child disappears from view, so to speak, only to be seen again at the beginning of school life with numerous defects and diseases unfortunately, that prompt attention and skilled care could easily have prevented. This deplorable state of affairs underlines the necessity for the establishment of day nurseries and nursery schools where these children can be cared for and where they can be left during the day whilst their parents go to work. Such children need additional milk and good food and it is the exception rather than the rule for the parents to be in a position to provide a liberal supply of these requirements. Dried milk is now being distributed at child welfare clinics to these children and they should be encouraged to attend these clinics so that they can take advantage of the supplies of milk provided by Government, and latterly so generously donated by UNICEF.

Causes of Death at Ages 1-5—1954

Groups	Group Total	Percentage of Total Mortality at ages 1-5
<i>Diseases, &c., attributable to Ante-Natal Causes :</i>		
Hydrocephalus 1 ; Malnutrition 2	3	8.35
<i>Communicable Diseases :</i>		
Dysentery 1 ; Pneumonia 8 ; Tetanus 1 ; Pulmonary Tuberculosis 1 ; Tuberculous Meningitis 1	12	33.26
<i>Diseases of the Nervous System :</i>		
Fit (Epileptic) 1 ; Meningitis 1	2	5.56
<i>Diseases of the Respiratory System :</i>		
Bronchitis 6	6	16.69
<i>Diseases of the Digestive System :</i>		
Gastro-Enteritis 8	8	22.24
<i>Other Causes :</i>		
Burns 1 ; Cellulitis of Face 1 ; Foreign body in throat 3	5	13.90
	*36	—

*M— 16 ; F—20.

PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASES

Notifiable Infectious Diseases

In accordance with section 107 of Part XIV of the Public Health Ordinance, Ch. 12. No. 4, infectious diseases and dangerous infectious diseases which have been so declared by the Central Board of Health have to be notified to Medical Officers of Health of Public Health Departments.

This is, of course, necessary in order that prompt and effective measures directed to the checking of the spread of the disease and to the elimination of the source of infection can be undertaken, and it is for this specific reason that the law states definitely "suffering from infectious disease or a disease suspected to be infectious".

It can be stated that the general practitioner is, on the whole, alive to his statutory obligation in this regard and does notify cases of infectious diseases promptly to the Medical Officer of Health; there are lapses here and there but those are the exceptions that prove the rule.

The infectious diseases that have been declared notifiable now number 20 of which 5 are the well known dangerous infectious diseases and 2, typhoid fever and anthrax, have been proclaimed dangerous infectious diseases, the former in 1937 and the latter in 1938. They are listed on the Notification Forms which are supplied by the Public Health Department to all practitioners in the Urban Sanitary District.

It happens, of course, on occasions, that errors of diagnosis are made and that a disease previously notified may have to be changed to another which may be non-notifiable, but these errors are easily corrected, and the hospitalisation of the case which is encouraged in all cases when beds are available makes this correction a matter of no great difficulty.

It is well known, that death returns, especially when post-mortems are made, are more reliable than notifications, and the figures that relate to deaths from infectious diseases give more accurate and dependable information. One of the main functions of the Public Health Department is, of course, to take such measures as will prevent the occurrence of infectious diseases, and to limit their spread when they do occur, and that this work is of vital importance can be seen from the scare and alarm that recent outbreaks of typhoid fever, infantile paralysis and yellow fever have been responsible for.

The detection and investigation of cases of infectious diseases, whether notifiable or not, their effective isolation in hospital, if at all possible, the close supervision of contacts, their inoculation with vaccine or serum as a prophylactic measure when such is available, the disinfection of premises and fomites, the elimination of the source and the destruction of the vector of infectious diseases are among the most important duties that the staff of the Public Health Department is called upon to perform.

During the year under report 405 cases of infectious diseases were notified and 88 deaths certified to the Public Health Department.

These notifications represent a substantial increase as compared with the previous year 1953 when 301 cases were notified but the deaths were only 5 more than the figure 83 for the year 1953.

Two epidemics were responsible for this large increase in notification, chicken pox and acute anterior poliomyelitis (infantile paralysis) of which 133 cases of the former and 35 cases of the latter were notified.

No deaths certified to chicken pox or acute anterior poliomyelitis were reported to the Department. In so far as the other infectious diseases are concerned an increase of 15 notifications of and of 2 deaths from, pulmonary tuberculosis was recorded.

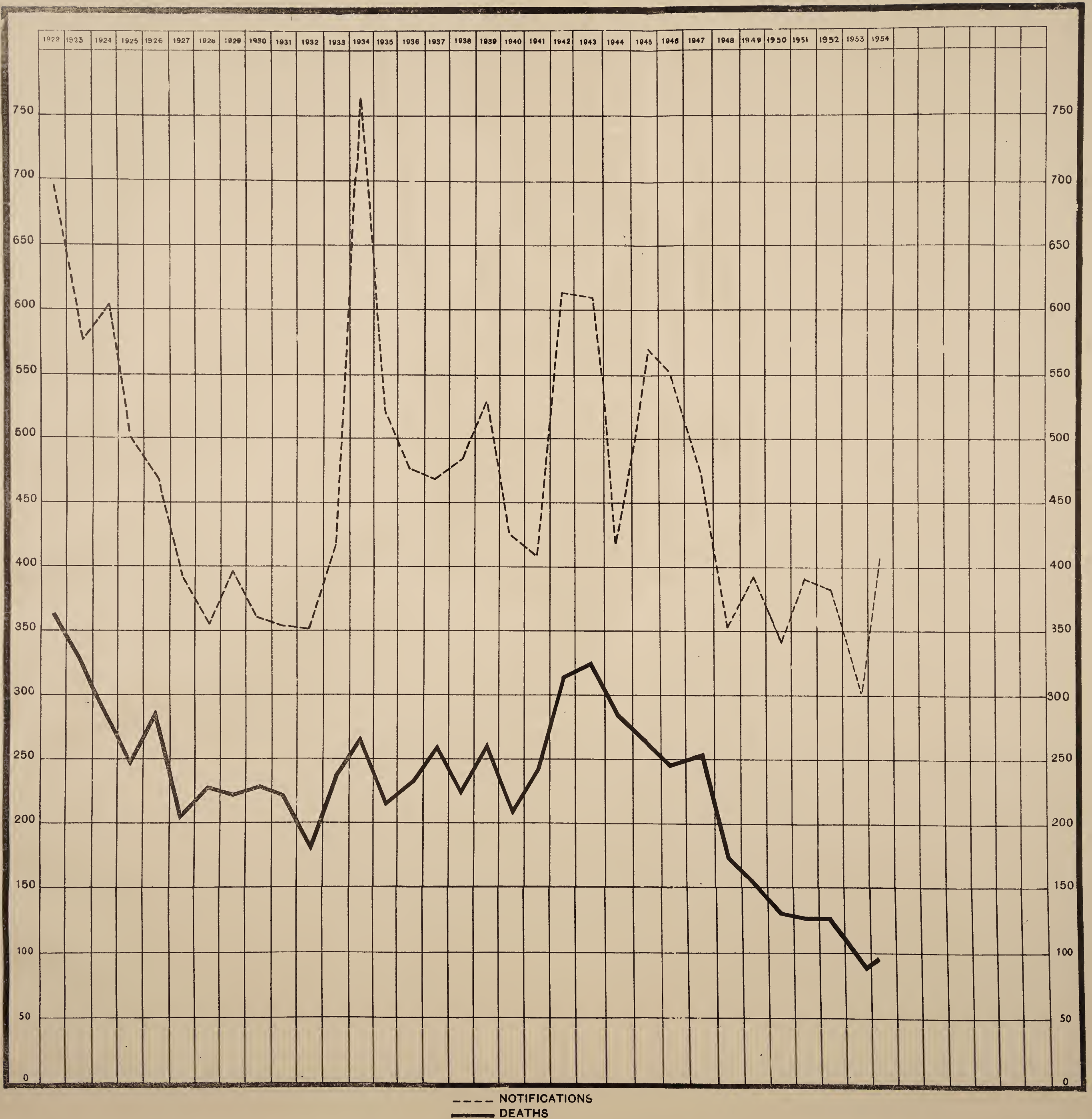
Typhoid fever, the notifications of which rose to 36 in 1953, due in large measure to the Arima outbreak, was responsible for 15 notifications with 3 deaths. Once again in 1954 more deaths from pneumonia were reported than notifications received, 58 as against 48.

As regards the distribution of cases of, and deaths from, notifiable infectious diseases the same well known facts emerge, i.e., that residents in the East Dry River District, and to a lesser extent, in the Belmont District, are more susceptible and succumb in larger numbers to infectious diseases than those of any other sub-district of the City. This is, of course, due to the general state of insanitation of the East Dry River and Belmont Sub-Districts, their overcrowding and congestion, the narrowness and small size of the building lots, the lack of proper roads and efficient drains, the inadequate water supply that obtains here, the existing privy cesspit system, and last but not least the general state of poverty of the residents that are a feature of these sub-districts.

The remedy is to execute works, major permanent works, to sewer and drain these areas, to provide an adequate water supply, to build proper roads, and to widen lots and diminish congestion.

This we have known for years is an absolute necessity, but for one reason or another we simply cannot get going.

Chart D
Port of Spain
Infectious Diseases—Notifications and Deaths 1922-1954



Infectious Diseases—Notifications and Deaths—1944-1954

Infectious Diseases	CASES NOTIFIED				DEATHS			
	Average 1944-48	Average 1949-53	1953	1954	Average 1944-48	Average 1949-53	1953	1954
Diphtheria ...	18.6	25.8	33	26	2.6	1.6	1	1
Membranous Croup ...	—	—	—	1	—	—	—	—
Typhoid or Enteric Fever ...	46.8	30.0	36	15	7.8	4.8	3	3
Plague ...	—	—	—	—	—	—	—	—
Cholera ...	—	—	—	—	—	—	—	—
Yellow Fever ...	—	—	—	—	—	—	—	—
Small Pox ...	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis ...	191.4	145.6	122	137	148.2	37.6	20	22
Tuberculosis (other forms) ...	12.2	5.2	6	6	10.8	9.8	6	4
Pneumonia (all forms) ...	90.2	66.4	46	48	70.4	66.4	52	58
Ophthalmia Neonatorum ...	8.4	7.0	7	3	—	—	—	—
Chicken Pox ...	91.8	78.6	51	133	—	—	—	—
Encephalitis Lethargica ...	—	0.2	—	1	1.0	5.2	—	—
Acute Poliomyelitis ...	1.0	1.4	—	35	0.8	—	—	—
Cerebro-spinal Fever ...	1.4	0.6	—	—	—	0.2	—	—
Typhus Fever ...	—	—	—	—	—	—	—	—
Acute Ascending Myelitis ...	—	—	—	—	—	—	—	—
Puerperal Fever ...	9.4	0.2	—	—	0.4	1.2	1	—
Anthrax ...	—	—	—	—	—	—	—	—
GRAND TOTAL ...	471.2	361.0	301	405	242.0	121.8	83	88
Rate per 100,000 population...	465	340	271	355	240	115	75	77

Distribution of Cases and Deaths from Notifiable Infectious Diseases, 1954

DISEASES	CITY		ST. CLAIR		EAST DRY RIVER		BELMONT		WOODBROOK		ST. JAMES	
	Cases noti- fied	Deaths	Cases noti- fied	Deaths	Cases noti- fied	Deaths	Cases noti- fied	Deaths	Cases noti- fied	Deaths	Cases noti- fied	Deaths
Diphtheria ...	5	—	—	—	7	—	6	—	4	1	4	—
Membranous Croup ...	—	—	—	—	—	—	1	—	—	—	—	—
Typhoid or Enteric Fever ...	3	—	—	—	2	1	2	—	1	—	7	2
Plague ...	—	—	—	—	—	—	—	—	—	—	—	—
Cholera ...	—	—	—	—	—	—	—	—	—	—	—	—
Yellow Fever ...	—	—	—	—	—	—	—	—	—	—	—	—
Small Pox (Alastrim) ...	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis ...	46	10	2	—	42	8	17	1	8	1	22	2
Tuberculosis (other forms) ...	1	1	—	—	4	—	1	—	—	1	—	—
Pneumonia (all forms) ...	8	13	—	—	14	22	12	10	2	1	12	12
Ophthalmia Neonatorum ...	1	—	—	—	1	—	—	—	—	—	1	—
Chicken Pox ...	36	—	3	—	30	—	33	—	19	—	12	—
Encephalitis Lethargica ...	—	—	—	—	—	—	—	—	1	—	—	—
Acute Poliomyelitis ...	9	—	1	—	6	—	10	—	6	—	3	—
Cerebro-spinal Fever ...	—	—	—	—	—	—	—	—	—	—	—	—
Typhus Fever ...	—	—	—	—	—	—	—	—	—	—	—	—
Acute Ascending Myelitis ...	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever ...	—	—	—	—	—	—	—	—	—	—	—	—
Anthrax ...	—	—	—	—	—	—	—	—	—	—	—	—
GRAND TOTAL ...	109	24	6	—	106	31	82	11	41	4	61	16
Rate per 100,000 population in each Sub-district ...	278	61	313	—	373	122	415	56	283	28	455	119

Notifiable Infectious Diseases—Home and Hospital Deaths, 1954

DISEASES	DEATHS			Hospital Deaths per cent. of Total Deaths	Corresponding percentage for the year 1953
	At Homo	At Hospital	Total		
Diphtheria ...	—	1	1	100.00	100.00
Enteric Fever ...	—	3	3	100.00	100.00
Pulmonary Tuberculosis ...	15	7	22	31.82	25.00
Tuberculosis (other forms) ...	1	3	4	75.00	66.67
Pneumonia (all forms) ...	28	30	58	51.72	71.15
Puerperal Fever ...	—	—	—	—	100.00
Cerobro-Spinal Fever ...	—	—	—	—	—
Acute Poliomyelitis ...	—	—	—	—	—
Encephalitis Lethargica ...	—	—	—	—	—
TOTAL ...	44	44	88	50.00	61.45

Premises, &c., Disinfected for Infectious Diseases and Vermin—1954

Diseases									Premises sprayed
Pneumonia	...	...	...	...	...	...	...	...	31
Tuberculosis	...	...	...	...	...	...	...	...	119
Enteric Fever	...	...	...	...	...	...	...	...	14
Diphtheria	...	...	...	...	...	...	...	...	28
Puerperal Fever	...	...	...	...	...	...	...	...	—
Ophthalmia Neonatorum			...	...	...	...	...	...	1
Chicken Pox	...	...	...	...	...	...	...	...	98
Poliomyelitis	...	...	...	...	...	...	...	...	37
Encephalitis Lethargica	...	...	...	...	...	...	...	...	1
Membranous Croup	...	...	...	...	...	...	...	...	1
				TOTAL	...	...	...	...	330
Vermin	...	...	...	...	...	...	...	...	90

12,751 Cesspits were sprayed with a mixture of crude and distillate oils (free of charge) as a routine measure of prevention against spread of the bowel-filth diseases.

TUBERCULOSIS

Pulmonary Tuberculosis

It is gratifying to be able to record that this infectious disease which at one time was third on the list of causes of death in the Urban Sanitary District and which was responsible for such suffering, physical and mental, on the part of the residents of the City is continuing to yield to the intensive measures that have had, perforce, to be instituted to check its ravages and which have been so successfully applied by the Tuberculosis Division of the Health Department of Government aided in so far as welfare and after-care are concerned and in rehabilitation work by the Association for the Prevention of Tuberculosis.

In fact the dark clouds that hung so ominously over the unfortunate victim of Tuberculosis have almost entirely been dissipated and improved methods of diagnosis, new and more efficient drugs and modern up-to-date hospitals and sanatorium coupled with more intensive public health work leading to the effective isolation of cases, the detection of contacts, their examination and their supervision, have combined to bring about a position from which we can look hopefully now to the elimination of this dread scourge from the community if only those other equally important adjuncts of better sanitation, the clearing of slum areas, the provision of adequate housing accommodation for all and for the tuberculous especially, a general state of better nutrition that cheaper and more readily available essential foodstuffs can achieve, could be made to play their all important part in the general plan. I need hardly state that the present position with its favourable outlook has not been cheaply won and it is as well for us to remember that the hard and conscientious work done in the past years beginning with the pioneer efforts of the Tuberculosis Association is now bearing well deserved fruit.

All is not, however, as bright as it looks. Patients cured of tuberculosis are beginning to present a problem that is likely to grow bigger and bigger and more and more difficult of solution unless we face it squarely now. More and more patients are being discharged from hospital and sanatorium to begin a new life again. We cannot afford to allow the hope of being able to play a useful part in the corporate life of the community, so carefully nurtured whilst the patient is undergoing treatment, to be dashed to the ground by the harsh and unsympathetic conditions that these people are made to encounter. A different type of work has very likely to be undertaken in which the patient has to be trained, a new job has to be found him, a new house, a new environment, and his family may very likely have to be given help, care and attention until such time as the patient can stand on his own legs again.

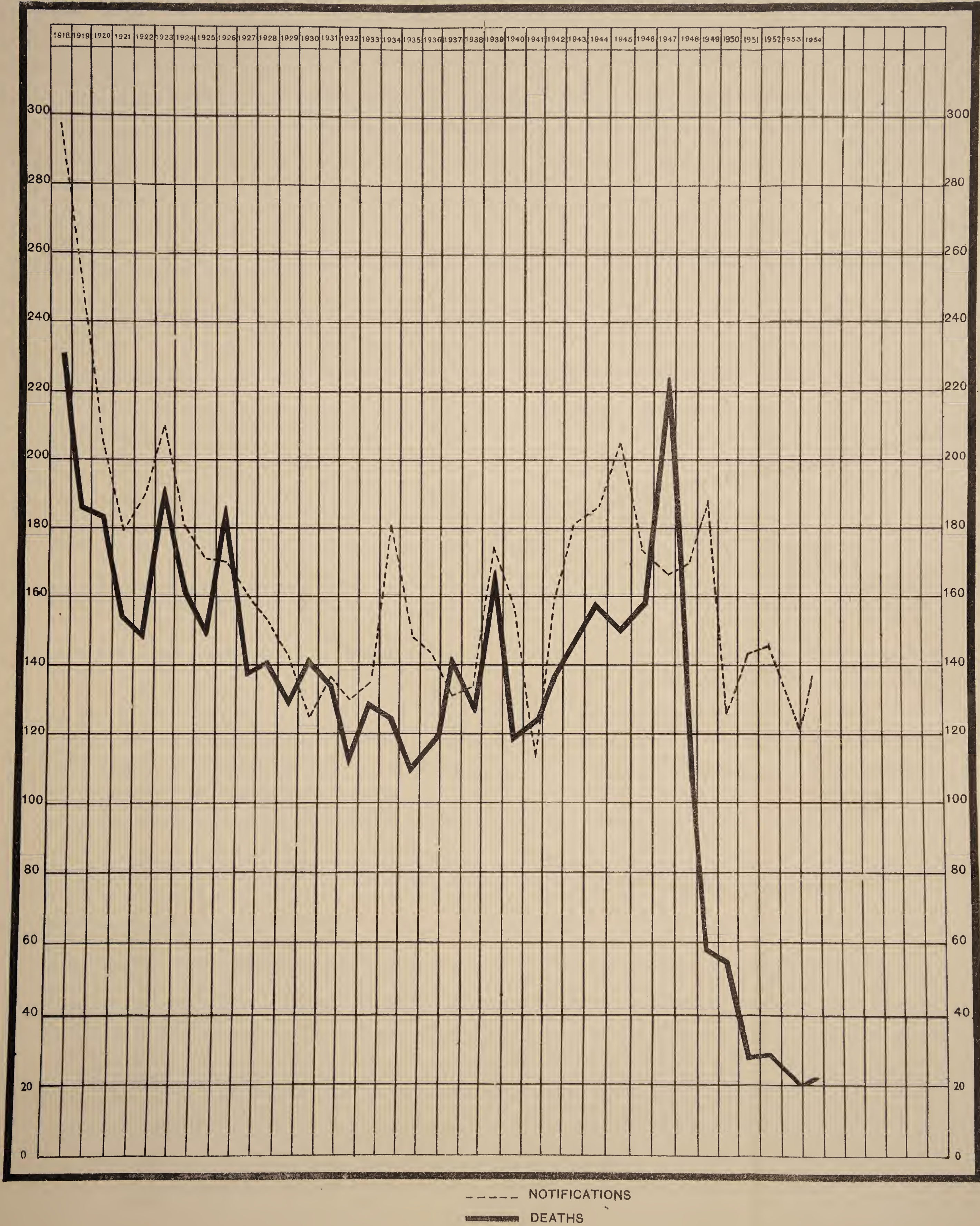
For all this funds are needed and helpers and teachers must come forward to join the small band whose time is already fully taken up in forwarding the objects of this most worthy cause.

During the year under report 137 cases of pulmonary tuberculosis were notified to the Department and 22 deaths were reported.

Starting with the year 1948 there has been a substantial decline each year in the number of deaths certified to this disease; the deaths in 1954 represent fewer than one-seventh the number which occurred in the year 1939.

Notifications have not, of course, kept pace with this spectacular decline for the reason that more and more cases are seeking early diagnosis and treatment, and it is this new orientation that has enabled so many cases to be detected and subjected to treatment at the earliest stage, when their cure can more easily be attained.

Chart E
Port of Spain
Pulmonary Tuberculosis — Notifications and Deaths 1918-1954



Pulmonary Tuberculosis—Notifications and Deaths—1918-54

Period				Notifications	Deaths	Death Rate per 100,000 population
Year 1918	...	...	...	299	233	343
Yearly Averages :						
1919-23	...	...	...	207	173.2	265
1924-28	...	...	...	167.6	154.6	238
1929-33	...	...	...	133.6	12.9	185
1934-38	...	...	...	147.4	124.6	162
Average 1919-38	...	...	...	163.9	145.4	213
Year 1939	...	...	...	175	167	185
1940	...	...	...	155	118	128
1941	...	...	...	113	124	127
1942	...	...	...	157	136	137
1943	...	...	...	182	148	145
1944	...	...	...	186	158	152
1945	...	...	...	206	140	141
1946	...	...	...	173	158	157
1947	...	...	...	222	167	174
1948	...	...	...	170	108	109
1949	...	...	...	189	58	57
1950	...	...	...	127	55	53
1951	...	...	...	143	27	25
1952	...	...	...	147	28	26
1953	...	...	...	122	20	18
1954	...	...	...	137	22	19

Non-Pulmonary Tuberculosis

There is nothing new to report under this heading in so far as the year 1954 is concerned. The same means of prevention as have been detailed in several previous annual reports continue to be applied in our efforts to eliminate this form of tuberculosis. The work, however, needs intensifying and legislation to secure the proper and efficient pasteurisation of all milk sold in the Urban Sanitary District still remains where it has long been, a project on paper only. Six cases of non-pulmonary tuberculosis were notified in the year under report and 4 deaths reported. The table listed hereunder shows that some progress in eliminating this form of tuberculosis is being made.

Non-Pulmonary Tuberculosis—Forms, Notifications and Deaths, 1954

Forms						Notifications	Deaths
Miliary Tuberculosis	...	...	...	...	...	—	1
Tuberculosis of Meninges	...	...	...	...	...	2	1
Do. Spine and Bones	...	...	...	...	...	4	—
Do. Peritoneum	...	...	...	...	...	—	1
Do. Larynx	...	...	...	...	...	—	1
TOTAL						6	4

Deaths from Non-Pulmonary Tuberculosis, 1924-54

Period						Deaths	Rate per 100,000 population
Yearly Averages :							
1924-28	...	...	...	...	...	15	23
1929-33	...	...	...	...	...	15.2	22
1934-38	...	...	...	...	...	10	13
Average 1924-38	...	...	...	...	...	13.4	19
Year 1939	...	...	...	...	...	15	17
1940	...	...	...	...	...	14	15
1941	...	...	...	...	...	6	6
1942	...	...	...	...	...	4	4
1943	...	...	...	...	...	9	9
1944	...	...	...	...	...	10	10
1945	...	...	...	...	...	13	12
1946	...	...	...	...	...	14	14
1947	...	...	...	...	...	11	11
1948	...	...	...	...	...	6	6
1949	...	...	...	...	...	10	10
1950	...	...	...	...	...	14	13
1951	...	...	...	...	...	7	7
1952	...	...	...	...	...	12	11
1953	...	...	...	...	...	6	5
1954	...	...	...	...	...	4	3

Enteric Fever

This is an infectious disease that is intimately bound up with the efficiency with which faecal matter is disposed of in a community, for it is caused in large measure by infected faecal matter contaminating water supplies and foodstuffs. In fact, it is generally conveyed from man to man by means of these vehicles, only a small proportion of cases being contact cases; and a few caused through the intermediary of fomites.

The whole object and purpose of getting faecal matter away from premises and houses as quickly as possible is to eliminate the possibility of foodstuffs or water becoming contaminated with infected faecal matter. It is clear, therefore, that unless and until the whole of the Urban Sanitary District is provided with the water-borne system of sewage disposal, and as long as the privy cesspit system or the so called "septic tank" system or the cesspool system or any other system of conservancy whereby faecal matter is retained in the house or on the premises obtains in any community, so long will the endemic occurrence of the bowel filth diseases as well as the potential danger of their occasional flare up in epidemic form persist. Water is the most important vehicle whereby faecal matter contaminated with typhoid bacilli is conveyed from man to man and that this did at one time occur in the City of Port-of-Spain is illustrated by the fact that, starting in the year 1925 when the full effect of the chlorination of all the sources of water supply, which was undertaken in 1924, could make itself felt, the number of cases of typhoid fever immediately fell in most spectacular fashion by one half, only 168 cases with 20 deaths being reported as against 370 cases with 49 deaths in the year before, as an examination of the accompanying chart will show, and ever since, the incidence of typhoid fever has been diminishing year by year.

It is as well that it be borne in mind that in the year 1918 when the Local Sanitary Authority was established by the Public Health Ordinance and when it was possible for the first time to keep accurate records, 495 cases of typhoid fever were notified and 104 cases died of the disease. The scare and alarm that such a state of affairs, if it occurred today in the Urban Sanitary District would create, can be better imagined than described.

The cases of typhoid fever that do occur nowadays in the City are, in my opinion, due to three causes: (1) contaminated foodstuffs and particularly contaminated foodstuffs that are usually eaten raw and uncooked like watercress, lettuce, cabbage, tomatoes, fruits &c., (2) secondary cases that arise from a neglected or wrongly diagnosed primary case, (3) carriers.

The preparation and sale of food by clean, healthy, and intelligent people under improved, hygienic conditions and the efficient protection of such foodstuffs from contamination by covering or by wrapping the foodstuff, as well as—and this would appear to be the most important requirement—an intense and properly directed health education campaign to raise the standard of hygiene in the food trade are the measures that must be adopted to deal with the first cause; the prompt removal of all suspected cases of typhoid fever to hospital and the inoculation of contacts with an efficient vaccine, the disinfection of fomites, the prompt oiling of cesspits and the emptying of so called "septic tanks" and cesspools by the vacuum cleaner with disposal of the contents at the Mucurapo Pumping Station are the measures necessary to deal with the second cause; carriers, the third cause still remain a problem. In spite of every effort by the hospital services to prevent or eliminate the carrier state in a case of typhoid fever before discharge, there still remains a minority of cases that continue to discharge bacilli in their urine or faeces in spite of all forms of modern treatment and so remain a potential source of danger.

I have no doubt that a few such cases persist in the Urban Sanitary District and the problem that they present is a difficult one.

The picture on the whole, in so far as the incidence of typhoid fever is concerned in the Urban Sanitary District, is a bright one and the number of cases has been showing a consistent decline in spite of occasional outbreaks here and there in the Colony which have their usual effects on the City.

In the year under report only 15 cases were notified and 3 deaths certified which, but for the year 1950 when 14 cases and 3 deaths were reported, represent the smallest number of cases and deaths since 1918.

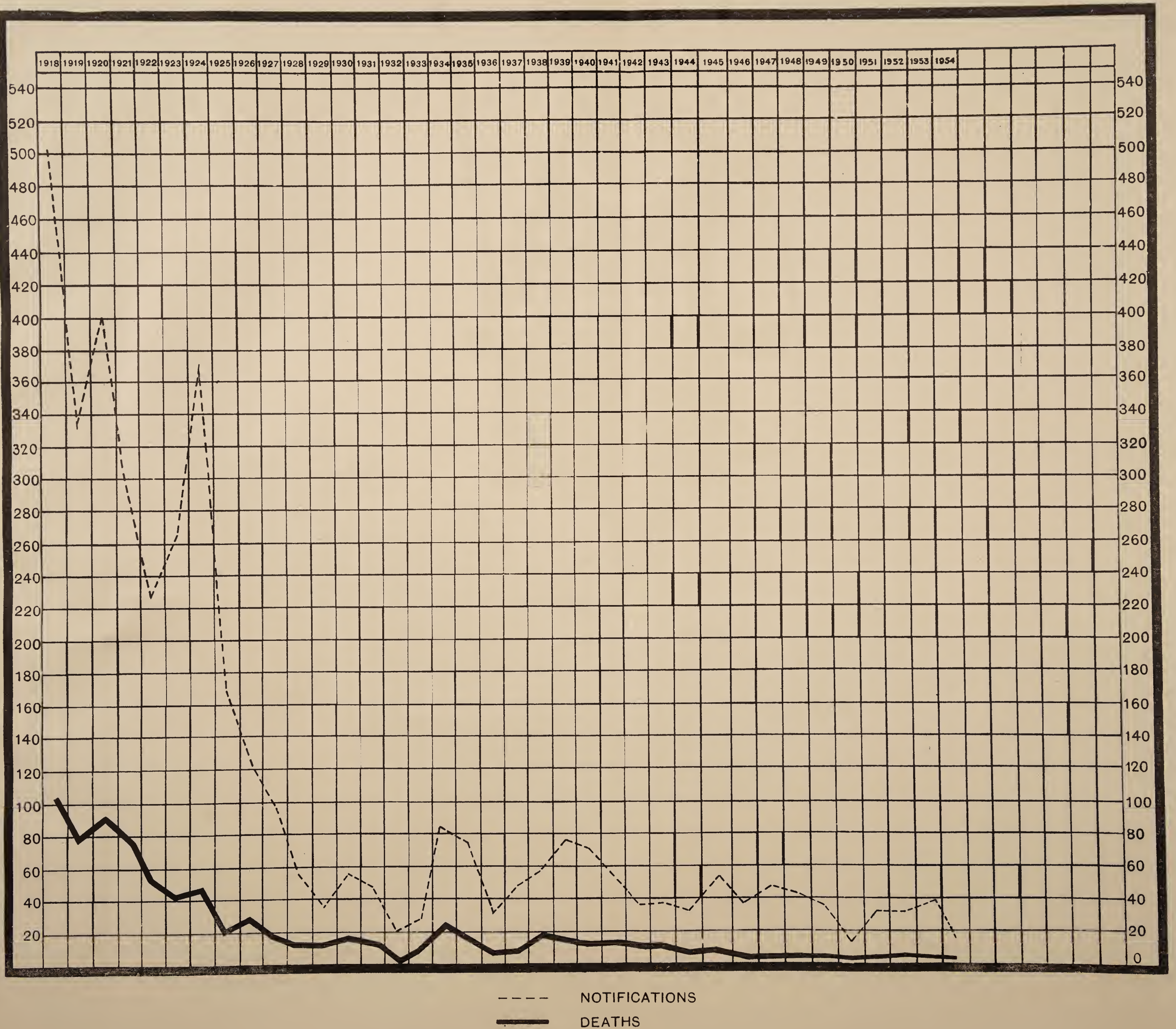
I have no doubt that, if and when the rest of the City is sewered, the number of cases of this dread disease will diminish further to the point of complete disappearance altogether.

ENTERIC FEVER Notifications and Deaths, 1918-54

Period				Notifications	Deaths	Death Rate per 100,000 population
Year 1918	...	...	...	495	104	152
Yearly Averages :						
1919-23	...	...	...	301.8	67.8	103
1924-28	...	...	...	162.28	25.2	39
1929-33	...	...	...	37	10.8	16
1934-38	...	...	...	59.8	14.6	19
Average 1919-38	...	...	...	140.3	29.6	44
Year 1939	...	...	...	75	15	17
1940	...	...	...	70	11	12
1941	...	...	...	56	14	14
1942	...	...	...	37	12	12
1943	...	...	...	38	12	12
1944	...	...	...	32	9	9
1945	...	...	...	55	10	9
1946	...	...	...	37	8	8
1947	...	...	...	68	7	7
1948	...	...	...	42	5	5
1949	...	...	...	36	5	5
1950	...	...	...	14	3	3
1951	...	...	...	32	5	5
1952	...	...	...	32	8	7
1953	...	...	...	36	3	3
1954	...	...	...	15	3	3

Chart F
Port of Spain

Enteric Fever—Notifications and Deaths 1918-1954



Inoculation of Enteric Fever Contacts, 1954

T.A.B. Injections

Year					Number Receiving one Injection	Number Receiving two Injections	Total
1947	...	...	...	...	250	222	472
1948	...	...	...	...	85	61	146
1949	...	...	...	...	101	44	145
1950	...	...	...	...	64	32	96
1951	...	...	...	...	329	249	578
1952	...	...	...	...	66	26	92
1953	...	...	...	...	213	146	359*
1954	...	...	...	...	101	46	147

*Mass inoculations were carried out during the 1953 outbreak of Enteric Fever at Arima and 8,250 City inhabitants, in addition, were inoculated.

PNEUMONIA

Pneumonia in its two forms, lobar and broncho pneumonia, is a notifiable infectious disease but it is what is called colloquially “badly notified”. For reasons that are not quite clear practitioners have never in the history of the Urban Sanitary District been known to notify each and every case of pneumonia encountered in the course of their practice with the care and the despatch that is their statutory obligation, and there must be many cases of pneumonia left not notified and so not known to the Public Health Department, which is therefore handicapped in its efforts to check the spread of this disease. How else can the occurrence of 50 deaths in the year under report be explained when only 48 notifications were received?

It is true that many cases of chronic system disease develop pneumonia as a terminal complication but it is inconceivable that such deaths are certified as deaths from pneumonia, which, of course, is only the secondary cause.

The explanation is very likely that practitioners do not usually see the need for the removal of cases of pneumonia to hospital and are prepared to treat them at home without giving much heed to their infectious nature, and the success that modern medicaments like the sulpha drugs and the antibiotics have achieved in dealing with this infection have tended further to aggravate this state of affairs.

It is important that the Department be made aware, promptly, of all such cases and particularly of those that occur in the East Dry River and Belmont Sub-Districts and the slum areas of the City Proper where overcrowding is at its worst, so that prompt and efficient measures of isolation can be adopted. For it is true that the poorest section of the community live here under unsatisfactory hygienic conditions and it is a matter of urgent necessity that every effort be made to prevent such serious complications like pulmonary consumption or heart disease which are so prone to occur under these conditions.

PNEUMONIA—(All Forms)

Notifications and Deaths, 1922-54

Period					Notifications	Deaths	Death Rate per 100,000 population
Yearly Averages :							
1922-26	...	...	...	...	111.8	78	123
1927-31	...	...	...	...	69.8	53.4	79
1932-36	...	...	...	...	155.4	80.6	110
Average 1922-36	...	...	...	...	112.3	70.7	104
Year 1937					125	85	110
1938					101	70	83
1939					107	59	65
1940					69	63	68
1941					138	88	90
Average 1937-41	...	...	...	...	108	73	83
Year 1942					332	152	153
1943					251	149	146
1944					109	97	93
1945					118	79	74
1946					87	61	61
1947					75	64	67
1948					62	51	52
1949					73	74	73
1950					64	54	52
1951					81	80	75
1952					68	72	66
1953					46	52	47
1954					48	58	51

DIPHTHERIA

Though only 26 cases of diphtheria were notified to the Public Health Department and one death certified in the year under report, diphtheria is undoubtedly, in my opinion, undergoing a change of type from the prevailing "mitis" of the early years of the Department to the more serious "gravis" type. Fortunately, however, practitioners are alive to the possibility of any case of sore or inflamed throat being a case of diphtheria and are prompt in taking swabs and in giving anti-diphtheria serum without waiting for the result of the bacteriological examination. But some cases are neglected and never turn up for medical examination before the laryngeal stage of the disease when it is, of course, often fatal.

There is need, I fear, for a campaign of active immunisation in schools and clinics, and this may very well be combined with a campaign against whooping cough and tetanus by using the triple vaccine that is now on the market. Only by this means can safety be insured against diseases that can have such devastating effects and may even, if recovered from, leave serious scars in the heart muscle.

DIPHTHERIA

Notifications and Deaths, 1917-54

Period				Notifications	Deaths	Death Rate per 100,000 population
Yearly Averages :						
1917-21	...	...	...	11.8	1.4	2
1922-26	...	...	...	14.8	2	3
1927-31	...	...	...	23.8	1.6	2
1932-36	...	...	...	29.8	2.2	3
Average 1917-36	...	...	...	20	1.8	3
Year 1937	...	...	...	30	4	5
1938	...	...	...	16	3	4
1939	...	...	...	61	2	2
1940	...	...	...	37	2	2
1941	...	...	...	30	2	2
Average 1937-41	...	...	...	34.8	2.6	3
Year 1942	...	...	...	18	3	3
1943	...	...	...	40	4	4
1944	...	...	...	19	3	3
1945	...	...	...	20	5	5
1946	...	...	...	22	2	2
1947	...	...	...	23	2	2
1948	...	...	...	9	1	1
1949	...	...	...	11	2	2
1950	...	...	...	37	3	3
1951	...	...	...	28	1	1
1952	...	...	...	20	1	1
1953	...	...	...	33	1	1
1954	...	...	...	26	1	1

CHICKEN POX

A mild epidemic of 133 cases of chicken pox, the second largest in the history of the Local Sanitary Authority, occurred in 1954. No deaths were reported. In fact no deaths attributable to this disease have ever been reported to the Public Health Department, though deaths can and do occur from complications like encephalomyelitis or terminal pneumonia in debilitated cases.

In the year 1946, 196 cases were notified, again with no deaths. As can be confidently predicted the largest number of cases occurred in the East Dry River District where congestion and overcrowding occur in their worst possible aspects.

Chicken Pox—Notifications, 1924-54

Period				Notifications	Period	Notifications
Yearly Averages :						
1924-28	...	...	...	19.8	Year 1944	33
1929-33	...	...	...	41	1945	122
1934-38	...	...	...	110.4	1946	196
1939-43	...	...	...	42.6	1947	57
					1948	51
					1949	57
					1950	96
					1951	95
					1952	94
					1953	51
					1954	133

ACUTE ANTERIOR POLIOMYELITIS

As has been stated in the introductory section of this report, an outbreak of this disease occurred in the City coincident with a similar outbreak in the rest of the Colony.

The disease was of a mild type and no deaths were reported and paralytic sequelae were few and far between.

The disease continued to occur throughout the year beginning in January and not falling off in incidence until October.

The scare and alarm inevitable to this disease were the cause of great anxiety and worry to the Public Health Department and requests for help from and enquiries at, the Department, were legion.

ACUTE ANTERIOR POLIOMYELITIS

Notifications and Deaths, 1927-54

Year	No. of cases reported	Deaths	Year	No. of cases reported	Deaths	Year	No. of cases reported	Deaths
1927-29 ...	—	—	1936 ...	3	—	1941 ...	15	4
1930 ...	5	1	1937 ...	10	1	1942 ...	26	3
1931 ...	—	2	1938 ...	2	—	1943-44 ...	—	—
1932 ...	3	—	1939 ...	1	—	1945 ...	—	1
1933-35 ...	—	—	1940 ...	—	—	1946 ...	1	—
						1947 ...	—	1
						1948 ...	3	2
						1949 ...	4	—
						1950 ...	—	—
						1951 ...	—	—
						1952 ...	3	—
						1953 ...	—	—
						1954 ...	35	—

OTHER NOTIFIABLE INFECTIOUS DISEASES

One case of Yellow Fever was brought to the notice of the Department (it was not, however, notified) concerning which reference has been made in the introductory part of this report. One case of Encephalitis Lethargica was notified; there were doubts, which still remain, as to whether this case was really one of Encephalitis Lethargica.

No case of the other Notifiable Infectious Diseases or of the other Dangerous Infectious Diseases: plague, cholera, small pox, typhus, was notified to the Department.

NON-NOTIFIABLE INFECTIOUS DISEASES

There is no hard and fast line that separates a non-notifiable infectious disease from a notifiable infectious disease. On occasions when an unusual number of the more infectious of these diseases is occurring and there is space available to hospitalise and so efficiently to isolate them, one or other, like measles or whooping cough, may be declared notifiable, this with a view to checking the incidence of the disease and to limiting its spread.

A disease like measles occurring in the slum and congested areas of the City might spread so fast and cause so many contact cases that isolation and disinfection of premises and fomites might be forced upon the public health authorities in an effort to limit the extent of the infection. Notifications would, of course, be of considerable help in locating these cases at the earliest possible opportunity, but even under existing circumstances the Sanitary Inspectors have been directed to take note of any cases of measles or whooping cough that they may encounter in the course of their house-to-house inspection in the districts and to notify the Medical Officer of Health. Some of the more chronic of these diseases like malaria, syphilis, ankylostomiasis and leprosy are the cause of much physical and mental ailment and occasion, as a result, much economic loss. In fact the ravages caused by these diseases have been so great that campaigns directed to their eradication have had to be undertaken and, in fact, are actually under way at the time I write with the result that the incidence of, and deaths from, these infections have diminished considerably.

In the year under report the death returns named 17 persons who resided within the limits of the City as dying from non-notifiable infectious diseases apart from 37 who died from diarrhoea and enteritis which is considered separately.

Where these persons acquired their infection is not clear, as investigation of a case after death does not meet with the success that is likely to be achieved if the case were notified whilst alive. It is therefore difficult to state with any degree of accuracy to what extent these diseases can be acquired within the limits of the City. Certain it is that it is most exceptional to acquire the infection of malaria, if one lived and stayed within the limits of the City, and similarly hookworm which depends on contaminated faeces infecting the feet and toes of people who usually walk barefooted, would not easily be acquired in the City.

Of the 17 deaths recorded, 8 were certified to syphilis. Syphilis has always claimed the largest number of deaths listed under this heading, excluding diarrhoea and enteritis which is dealt with under a separate heading. Dysentery, a disease caused by infected bowel filth contaminating food-stuffs, particularly those that are usually eaten raw or semi-cooked, claimed 2 deaths.

Non-Notifiable Infectious Diseases—Home and Hospitals Deaths (1954)

DISEASES	DEATHS			Hospital Deaths per cent. of Total Deaths	Corresponding percentage for the year 1953
	At Home	At Hospital	Total		
Malaria	1	.	1	—	—
Whooping Cough ... ..	.	2	2	100.00	—
Influenza ... ..	.	1	1	100.00	—
Dysentery ... ..	.	2	2	100.00	33.33
Ankylostomiasis	2	.	2	—	—
Syphilis	8	.	8	—	—
Leprosy	1	.	1	—	—
TOTAL	12	5	17	29.41	9.09

MALARIA

There is no new development to record under this heading in the year under report. The situation remains the same as previously reported, viz. that there is hardly any malaria within the limits of the City and what there is, is invariably due to importation from outside by cases who have acquired the infection outside the City and who came to the City for treatment, and old febricitants who once lived in a malarious area but who have now taken up residence within the City's limits and who get periodic recrudescences of an infection, due to lowering of resistance, which was never completely eradicated.

That does not mean to say, of course, that no anophelene mosquitoes are to be found within the limits of the City; in the wet season particularly, it is possible to pick up mosquito larvae of the anophelene species in the swampy areas at the extreme eastern and western limits of the City, but these have never posed a serious problem and they have always been easily brought under control by the time honoured method of oiling, draining, canalising, &c. The adjoining areas, however, of the Laventille and Cocorite Swamps continue to be a source of potential danger to the City in so far as malaria is concerned and I regret to state that so far no works of a permanent nature have been undertaken to eliminate them. The Malaria Division of the Health Department of Government, to whom we are indebted for help and advice in all our mosquito problems, continued the temporary work of filling, draining and canalising areas in the Cocorite Swamp, as it has been doing for the past ten years now, and the expenditure on this project, I understand, is in the vicinity of 10 to 12,000 dollars a year.

But no permanent works to reclaim this swamp and to provide in time much needed building space to relieve the congestion and overcrowding in the City have yet been undertaken and appear now likely to be undertaken.

The routine work of the Anti-Mosquito Unit, as carried out by its culex and anophelene section continued, as it must continue from year to year, unabated during the year under report: the filling in of depressed areas capable of holding water, the oiling of pools and sheets of stagnant water, the trimming of the banks of the Maraval River and the canalising of its bed, the flushing of underground drains and culverts, the oiling of privy cesspits, &c.

Malaria—Local Distribution of Deaths, 1945-54

Sub-districts	DEATHS									
	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954
City Proper ...	6	6	—	—	1	—	—	—	—	—
St. Clair ...	—	—	—	—	—	—	—	—	—	—
East Dry River ...	8	1	—	1	—	—	—	—	—	—
Belmont ...	—	2	2	1	—	—	—	—	—	—
Woodbrook ...	—	2	1	—	—	—	—	—	—	—
St. James ...	1	1	2	1	—	—	1	—	—	1
TOTAL ...	15	12	5	3	1	—	1	—	—	1

SYPHILIS

Syphilis is a disease which is of particular interest and concern to the Public Health Department in that it is responsible for a large percentage of the mortality attributable to diseases of the heart and circulatory system which are the chief causes of death in the Urban Sanitary District, and also because it plays an important part in the infant mortality rate, particularly that portion of the rate which is attributable to ante-natal causes and which is manifested by such signs as hydrocephalus, retardation of growth, congenital mental idiocy, congenital mental retardation, &c.

It is, of course, an important cause of abortion, still births and prematurity.

The Caribbean Medical Centre situated in the old U.S.O. Building on Wrightson Road remains a great boon to the residents of the City and more and more enquiries are being made at the Public Health Department by patients who desire help and guidance.

The result of the activities of this Division and particularly of the propaganda that is so successfully carried on at the Centre directed to the education of the City's population as to the ravages of venereal disease has been so successful that it is difficult nowadays to encounter a case of primary syphilis and fewer and fewer food handlers are found to be suffering from venereal disease with each succeeding year. There still remain, however, large numbers of cases of chronic diseases of the heart and the circulatory system which exact a very high mortality, in fact, the highest mortality in the Urban Sanitary District, diseases of the brain and spinal cord, diseases of the kidneys and liver, for which syphilis is in large measure responsible and for which very little by way of cure can be effected.

With an early resort to treatment before these delicate tissues have been damaged and above all with a greater appreciation of the havoc these venereal diseases can wreak, it should be possible to diminish year by year the damage done by syphilis and even to eliminate it altogether from the community.

Deaths from Syphilis—1918-54

Period							Deaths	Rate per 100,000 population
Yearly Averages :								
1918-22	...	...	...	...	...	...	16.2	24
1923-27	...	...	...	...	...	...	56.8	88
1928-32	...	...	...	...	...	...	28.2	41
1933-37	...	...	...	...	...	...	21.8	29
Average 1918-37							24.6	37
Yearly Average 1938-42							24.6	27
1943	...	...	...	...	...	...	29	28
1944	...	...	...	...	...	...	36	35
1945	...	...	...	...	...	...	22	21
1946	...	...	...	...	...	...	20	20
1947	...	...	...	...	...	...	21	22
1948	...	...	...	...	...	...	8	8
1949	...	...	...	...	...	...	7	7
1950	...	...	...	...	...	...	8	8
1951	...	...	...	...	...	...	11	10
1952	...	...	...	...	...	...	6	5
1953	...	...	...	...	...	...	7	6
1954	...	...	...	...	...	...	8	7

DYSENTERY, DIARRHOEA AND ENTERITIS

These infectious diseases are usually considered together and the only reason perhaps, why this is usually done is due to the fact that their method of spread follows a common pattern, i.e., intestinal infection of man by swallowing excreta contaminated with the causative organisms. Though these organisms vary, being bacilli of the food poisoning type, i.e., salmonella, sometimes, true dysentery bacilli at other times, and protozoa on occasions, in order to start up an infection these bacilli must find their way via the mouth to the intestinal tract of man and this is generally done through the medium of contaminated foodstuffs, particularly those of the green variety that are usually eaten raw or partially cooked, and those of the made-up variety that are subject to much handling like ice cream, mayonnaise, pies, sausages, pastry, &c., &c.

It does also happen on occasions that tinned foodstuffs are the vehicle whereby these infections are introduced into the body, particularly tinned foodstuffs that are in the early stage of blowing due to improper and inadequate processing. Transmission from case to case by fingers and fomites is, of course, a possibility, if those who are attending or nursing a case of these diseases are not careful about disinfecting and washing their fingers thoroughly before partaking of food or are victims of that disgusting habit of licking or sucking the fingers, but this method is rare and exceptional.

Improper certification of the cause of death may cause returns to be labelled dysentery or diarrhoea when the basic underlying cause is cancer of the bowel or intestinal tuberculosis, but these errors are not usually met with nowadays with the greater care that is being exhibited in the certification of causes of death and particularly with the adoption of the International Classification of 150 causes of morbidity and mortality.

The diarrhoea and enteritis of infants appear to be a disease *sui generis* caused by organisms of either the food poisoning or dysentery variety. It appears certain that the vehicle of transmission is contaminated milk or liquid foods in which fresh milk or dried milk forms the essential part. Exposure of this type of food to the dirt, dust, and germs of the atmosphere in an open kitchen or pantry where the temperature is suitable for the rapid multiplication of organisms almost invariably leads to contamination. It is important to bear in mind that milk foods are very susceptible to contamination, and should be consumed almost as soon as they are prepared, and the greatest care given to bottles, spoons, saucers, cups and last but not least to the hands of those in attendance upon infants and young children.

In this connection proper and efficient pasteurisation of milk in keeping with statutory requirements for which public health officers have been clamouring for years now would go a long way in reducing the incidence of this infection. During the year under report a substantial reduction in

the mortality attributable to diarrhoea and enteritis was recorded, 37 deaths as compared with 58 deaths in 1953. The East Dry River District again, as can be confidently predicted, furnished the largest number of deaths from this disease.

Deaths from the Dysenteries—1918-54

Period							Deaths	Death Rates per 100,000 population
Year 1918	...	...	...	...	...	...	43	63
Yearly Averages :								
1919-23	...	...	...	...	...	...	38.2	58
1924-28	...	...	...	...	...	...	32	49
1929-33	...	...	...	...	...	...	14.8	21
1934-38	...	...	...	...	...	...	5.4	7
1939-43	...	...	...	...	...	...	7.4	8
1944-48	...	...	...	...	...	...	3	3
Average 1919-48	...	...	...	...	...	...	16.8	23
Year 1949	...	...	...	...	...	...	1	1
1950	...	...	...	...	...	...	2	2
1951	...	...	...	...	...	...	1	1
1952	...	...	...	...	...	...	3	3
1953	...	...	...	...	...	...	3	3
1954	...	...	...	...	...	...	2	2

Deaths from Diarrhoea and Enteritis—1918-54

Period							Deaths	Death Rates per 100,000 population
Year 1918	...	...	...	...	...	...	193	284
Yearly Averages :								
1919-23	...	...	...	...	...	...	143.6	218
1924-28	...	...	...	...	...	...	72.8	112
1929-33	...	...	...	...	...	...	52.8	76
1934-38	...	...	...	...	...	...	40	52
1939-43	...	...	...	...	...	...	78.4	81
1944-48	...	...	...	...	...	...	46	44
Average 1918-48							76.16	103
Year 1949							30	30
1950							37	35
1951							42	39
1952							39	36
1953							58	51
1954							37	32

Diarrhoea and Enteritis—Deaths in Sub-Districts 1954

Sub-districts									Deaths
City Proper	...	...	...	...	...	...	...	8
St. Clair	...	...	...	...	...	...	...	—
East Dry River	...	...	...	...	...	...	...	15
Belmont	...	...	...	...	...	...	...	4
Woodbrook	...	...	...	...	...	...	...	4
St. James	...	...	...	...	...	...	...	6
TOTAL			...	...	...	...	...	37

OTHER PRINCIPAL CAUSES OF DEATH

Cardiac and Vascular Diseases

I have been referring to the mortality attributable to these diseases in every annual report that I have written and I must point out again, as I have pointed out before, that there appears to be no lessening of the toll that these diseases continue to take from these delicate tissues, the heart and circulatory system which are, next to the brain tissues and the spinal cord, the most vital of the human body, though fewer deaths, 263 as against 299, were certified to cardiac and vascular diseases during the year under report than in the previous year 1953. In fact it would appear that the price that has to be paid for the better general and personal health of the community, for the improved and improving environmental hygiene and for the consequent greater expectation of life that is being achieved, is an increased vulnerability of the tissues of the heart and blood vessels to the chronic system diseases and especially to the stresses and strains, mental and physical, which are part and parcel of the complexity of modern life and which undoubtedly play an important part in the aetiology of these diseases. It is true that the older the tissue, the more susceptible it becomes to, and the less capable it is of resolving, the lesions arising from disease and accident but that is certainly not the whole story. There appears to be other factors which are still obscure. Without knowing the cause, measures of prevention cannot be applied and so very little is being done and in fact can be done to prevent the incidence of, and mortality from, these diseases. But much can certainly be done by propaganda and health education to help those afflicted, who are usually in the most productive period of their lives when they can be of the greatest use to the community, to live within the limits of their heart and circulatory system and to avoid those stresses and strains, the worry and anxiety, and the lack of rest and quiet, that contribute so much to the final issue.

Deaths from Cardiac and Vascular Diseases in Age Groups—1954

FORMS	0-20 years	21-40 years	41-60 years	Over 60 years	Total
<i>Diseases of Arteries and Valves :</i>					
Aneurism	—	—	1	2	3
Arterio-Sclerosis and Atheroma ...	—	—	3	18	21
Coronary Thrombosis	—	—	4	11	15
Mitral and Aortic Incompetence ...	—	—	4	4	8
Other Diseases of Arteries and Valves	—	7	26	52	85
<i>Diseases of the Heart :</i>					
Auricular Fibrillation	—	—	—	2	2
Pericarditis	1	—	—	1	2
Myocarditis	—	2	9	35	46
Myocardial Degeneration	—	—	4	36	40
Cardiac Aneurism	—	—	—	—	—
Endocarditis	1	1	1	2	5
Other Cardiac Diseases	2	1	14	19	36
TOTAL	4	11	66	182	263

CANCER AND OTHER MALIGNANT DISEASES

A slight reduction in the number of deaths attributable to cancer and other malignant diseases was noted when the returns that were received at the Public Health Department during the year 1954 were analysed whilst computing the vital statistics for 1954. But the reduction appears to be within the limits of normal variation and would seem to bear no statistical significance. When it is borne in mind that from an average of 44.4 deaths in the 5-year period 1918-22, there has been a jump to 98.4 in the 5-year period 1950-54, or what is perhaps more intelligible, when the death rate of 67 per 100,000 in the 5-year period 1918-22 is compared with the death rate of 91.8 per 100,000 in the 5-year period 1950-54, it will be seen that there is little justification for an attitude of complacency to these diseases.

The causes of these diseases still, of course, remain obscure, and so little can be done by way of prevention, but early diagnosis and early treatment can do much to limit the damage done by these diseases, and propaganda and education to this end are an urgent necessity. Any suspicious lump or indolent ulcer or any lesion in any part of the body that is slow in healing should at once be brought to the notice of a doctor with a view to early diagnosis and if necessary appropriate treatment by surgery or with X-ray or radium.

Deaths from Cancer and other Malignant Diseases—1918-54

Period							Deaths	Rate per 100,000 population
<i>Yearly Averages :</i>								
1918-22 ... ..	...	...	...	...	...	...	44.4	67
1923-27 ... ..	...	...	...	...	...	...	45.6	71
1928-32 ... ..	...	...	...	...	...	...	44.6	65
1933-37 ... ..	...	...	...	...	...	...	556.8	76
Average 1918-37							47.9	70
<i>Yearly Average 1938-42</i>							75.4	82
1943 ... ..	...	...	...	...	...	...	88	86
1944 ... ..	...	...	...	...	...	...	84	81
1945 ... ..	...	...	...	...	...	...	80	75
1946 ... ..	...	...	...	...	...	...	79	78
1947 ... ..	...	...	...	...	...	...	75	78
1948 ... ..	...	...	...	...	...	...	87	88
1949 ... ..	...	...	...	...	...	...	91	90
1950 ... ..	...	...	...	...	...	...	91	89
1951 ... ..	...	...	...	...	...	...	103	94
1952 ... ..	...	...	...	...	...	...	89	90
1953 ... ..	...	...	...	...	...	...	113	102
1954 ... ..	...	...	...	...	...	...	96	84

Cancer and other Malignant Diseases—1954

Malignant Neoplasms	DEATHS	
	Males	Females
Malignant neoplasm of buccal cavity and pharynx	2	3
Malignant neoplasm of oesophagus	—	3
Malignant neoplasm of stomach	10	9
Malignant neoplasm of intestine, except rectum	5	8
Malignant neoplasm of rectum	—	—
Malignant neoplasm of larynx	1	—
Malignant neoplasm of trachea and of bronchus and lung not specified as secondary	3	3
Malignant neoplasm of breast	—	9
Malignant neoplasm of cervix uteri	—	8
Malignant neoplasm of other and unspecified parts of uterus	—	8
Malignant neoplasm of prostate	1	—
Malignant neoplasm of skin	1	—
Malignant neoplasm of bone and connective tissue	1	1
Malignant neoplasm of all other and unspecified sites	8	10
Leukaemia and aleukaemia	—	—
Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system	2	—
TOTAL	34	62

SANITARY ADMINISTRATION

At the end of the year under report the staff of the Public Health Department comprised 182 employees of which 46 were members of the pensionable establishment and 136 members of the non-pensionable establishment otherwise known as the daily-paid workers.

The Sanitary Inspectors who numbered 20 from the year 1920 to the year 1951 when 11 more were recruited, were 31 in number but of these only 24 were permanent men, 7 vacancies being filled by men who have been at one time or another members of Government or other municipal services, there being at the moment no recently qualified young Sanitary Inspectors to fill the vacant posts.

Even as it is, because the Local Service Commission, which is to be appointed in accordance with section 23 of the Port-of-Spain Corporation (Amendment) No. 2 Ordinance 1954 has not yet been appointed, vacancies can be filled by acting men only, and some officers have been acting for nearly two years in vacant posts, a state of affairs which does not, of course, conduce either to efficiency or harmony. Because also of this disability in the current year, when health visitors were available, we were unable to fill the 3 vacant posts of Health Visitors, and because the regrading scheme based on Government rates of pay has not been implemented, we are not likely now to recruit these Health Visitors, even in an acting capacity, who will, of course, prefer to work for Government.

The City is divided into 18 Sanitary Districts with a Sanitary Inspector in charge of each. House-to-house inspection, as I have stated before, is the pivot around which the whole public health work of the Department revolves, and the District Sanitary Inspector is in complete charge of all the sanitary services in his district; he is, in fact, the chief functionary in a sanitary sense in his district and he is answerable to the Chief Sanitary Inspector and ultimately to the Head of the Department for the health and sanitary state of his district.

Sanitary control of the 18 districts which now comprise from 190 to 2,230 premises, dependent on the size of the premises, the location of the premises, type of building, whether one-storey or two-storey, &c., is the objective that must be attained by the District Sanitary Inspector who is expected to do at least 25 house-to-house inspections each day, and he must "cover" his district, i.e., inspect each and every premises in his district, at least once in five weeks.

Seven other Sanitary Inspectors were employed in the year under report in the execution of duties of a special nature as follows :

- (a) One for the inspection of buildings, the reporting upon building plans, layouts, specifications, completion certificates, &c., the inspection of buildings in the course of erection to ensure the provision of the necessary open spaces and the placing of the sanitary conveniences on the sites shown on the plan and their proper and efficient construction, the drafting and preparation of charts, graphs, diagrams for annual reports and departmental use, the reporting on applications for leases, assignments, &c.
- (b) One Inspector is engaged in the planning, mapping out, preparation and the supervision of the work of the Anti-Rat Unit and the Anti-Bat Unit.

- (c) One Inspector is in charge of the work of the Anti-Mosquito Unit and plans, maps out, prepares, directs and supervises the work of that Unit, which because of the outbreak of yellow fever during the year under report had to be completely re-organised and a cleaning section added to it.
- (d) Three Sanitary Inspectors are assigned to food inspection work : one Inspector is in charge of the whole Unit and he has to plan, organise, map out, direct and control the work in all its aspects throughout the City. Another Inspector is posted to the Wharf and Customs Area for the purpose of examining foodstuffs on arrival at the Wharves and Customs before distribution in the City, and the third reports and checks upon itinerant vendors, carts, trays, baskets and other receptacles with a view to securing their registration and is engaged especially in the health education of these difficult food vendors.
- (e) The Senior Sanitary Inspector (outdoor) does the collection of daily samples of the City's water supply, and the taking of bi-weekly and if necessary daily samples of the several river and well sources of supply; the patrolling of the various catchment areas of the river and well sources of supply to see to it that the bye-laws for the protection of these sources are not contravened, in addition to the work of general supervision in which he has to assist.

There are two overseers, one attached to the Anti-Mosquito Unit which comprises 1 recorder, 2 checkers, 2 foremen, 9 supervisors, 32 aedes inspectors, 10 "trappers" and 12 cleaners; the other attached to the Anti-Rat Unit which comprises 1 timekeeper, 1 checker, 9 foremen and 27 trappers.

Six men comprise the Disinfection Unit, 2 of which are spraymen for disinfecting and disinfecting premises and 4 are oilers engaged in the oiling of pools and cesspits in the unsewered area of the City. The former work under the direction and supervision of the District Sanitary Inspector, the latter under the direction and supervision of the Sanitary Inspector in charge of the Anti-Mosquito Unit. The caretaking and maintenance of the Public Conveniences, a service transferred from the City Engineer's Department in 1943, are carried out by 9 men.

I have already stated in previous annual reports that additional responsibility entailing care, control, and supervision was added to the Department when the Unit maintained by the Corporation for the emptying of cesspits, cesspools and "septic tanks" was transferred from the City Engineer's Department to the Public Health Department in 1946. This Unit comprises 12 cleaners, who are jobbers, 2 chauffeurs, 1 checker, 1 carpenter together with 1 cooper, and a yardman and "deadman" attendant, under the direction and control of the Supervisor of the cleaning of Cesspits.

Actually the outdoor staff in the year under report comprised 25 Sanitary Inspectors, 1 Supervisor, 2 Overseers, and 136 miscellaneous workers on the non-pensionable establishment, all under the care, control, direction, and supervision of the Chief Sanitary Inspector.

The indoor staff comprised 1 Principal Officer (Senior Sanitary Inspector, indoor), 2 Sanitary Inspectors, 2 Clerical Assistants, 1 Scientific Assistant, 1 stenotypist, 1 typist, 1 messenger and 1 office attendant, all under the care, control, direction and supervision of the Principal Assistant.

They are concerned with the indoor activities of the Department in so far as they affect correspondence, verbal and written reports, complaints, the issuing of licences, badges, certificates of registration, the compilation of statistics, the preparation of the monthly, quarterly and annual reports, the keeping of the financial records and transactions of the Department, the various Registers, Books, Minutes, &c., &c.

Inspection of Premises, &c., by Sanitary Inspectors—1954

Average Monthly No. of Visits to Dwellings, Shops and other Premises ... 6,730

Inspection of Stores, Shops, &c.

			<i>Average Monthly No. of Visits</i>				<i>Average Monthly No. of Visits</i>
Provision and Meat Shops	...	...	198	Sweet Drink Carts	...	...	21
Provision Stores	...	...	74	Dairies and Cowsheds	...	...	44
Restaurants and Cookshops	...	...	63	Stables	...	...	23
Bakehouses	...	...	29	Goat Pens	...	...	56
Bread Depots	...	...	6	Aerated Water Factories	...	...	3
Cake and Ice Cream Shops	...	...	249	Soap Factories	...	...	2
Fry Shops	...	...	6	Other Factories	...	...	57
Hotels	...	...	11	Schools	...	...	25
Markets	...	...	8	Common Lodging Houses	...	...	4
Spirit Shops	...	...	36	Barber Shops	...	...	22
Ice Cream Carts and Pails	...	...	49	Dyeworks	...	...	1
Cake Trays and Baskets	...	...	58	Laundries	...	...	17
Provision Trays and Baskets	...	...	77	Garages	...	...	23
Bread Carts and Baskets	...	...	10	Tanneries	...	...	2
Fresh Fish Trays	...	...	17	Public Urinals	...	...	3
Oyster Vendor's Baskets	...	...	2	Boats	...	...	6
Plantain Carts	...	...	—		

Results of Notices and Verbal Directions—1954

	Constructed, installed or provided	Repaired	Cleansed	Painted	Elimi- nated	Lime- washed	Oiled
Yard pavements	28	150	282	—	—	—	—
Depressions in yards	—	—	—	—	138	—	—
Yards	—	14	2,773	—	—	—	—
Drains, sinks, gullies, washing troughs, &c.	222	576	2,810	—	—	—	—
Lavatories, sewer basins, flushtanks, urinals, bath rooms, &c.	262	358	1,001	—	—	—	—
Privies	221	1,190	41	—	—	1,040	—
Cesspits	205	144	2,055	—	—	—	71
Manure Heaps	—	—	—	—	370	—	—
Rat Holes	—	—	—	—	119	—	—
Tree Shade, Overgrowths of bush	—	—	—	—	1,123	—	—
Dustbins	889	66	277	—	—	—	—
Dustbin covers	513	—	—	—	—	—	—
Shops, Parlours, Restaurants, Bakehouses, Hotels, &c.	—	305	1,969	390	—	331	—
Aerated Water Factories	—	—	23	—	—	3	—
Bread Carts	7	9	4	25	—	6	—
Barracks, Common Lodging Houses	—	54	11	16	—	42	—
Garages, Kitchens	—	72	—	—	—	69	—
Cowsheds, Stables	—	72	362	—	—	120	—
Tanneries, Soap Factories, &c.	—	—	—	—	—	3	—
Close-boarding, Ventilation of Houses	4	—	—	—	—	—	—
Barber Shops and other Workshops	—	—	62	26	—	—	—
Schools	—	—	—	—	—	—	—

Reports to Water and Sewerage Department—1954

Reports	Total
Leaks, defective taps, chokes, &c.	1,715

Anti-Rabies Measures—1954

TRAPPING, ETC., OF BATS				
No. of locations inspected for roosts of bats				18,675
BATS CAUGHT				
Artibeus ... ..	...	...	...	347
Desmodus ... ..	...	...	...	4
Hemiderma ... ..	...	...	...	21
Molossus ... ..	...	...	...	28
Noctilio Leporinus ... ..	...	...	...	5
Saccopteryx ... ..	...	...	...	10
Myotis ... ..	...	...	...	5
Phyllistoma ... ..	...	...	...	—
Glossophaga ... ..	...	...	...	2
Propteryx ... ..	...	...	...	1
				423*

*No bats were caught in adjacent districts outside the City limits.

Building Plans, &c.—1954

Reports made by the Public Health Department were as follows:—	
On plans, &c., for reconstruction or reconditioning of buildings	820
On applications for leases of land in Woodbrook and Gonzales Place	73
On premises in which building operations were in progress	112
On application for certificates of completion of buildings	106

Cleaning of Privies, &c.—1954

Under the Public Health Ordinance, Ch. 12. No. 4, Section 64 (1) (c), Cesspits, Cesspools and Septic Tanks were cleansed as follows:—					
East Dry River ... ..	...	...	...	...	875
Belmont ... ..	...	...	...	...	763
St. James ... ..	...	...	...	...	282
Woodbrook ... ..	...	...	...	...	135
					2,055
Out Districts ... ..	...	...	...	...	—

Outstanding cesspits up to 31st December, 1954 numbered 41.
Average cost per cesspit emptied: \$15.56.

Prosecutions—1954

CASES DETERMINED BY THE MAGISTRATE

<i>Offences</i>			<i>No. of Cases</i>	<i>Results Total Fines, &c.</i>
Failing to comply with nuisance notices	...	...	17	Fined \$301.00
			7	Reprimanded
			3	Dismissed
			<hr/> 27	
Breaches of Sale of Foodstuffs Bye-laws	...	...	32	Fined \$229.00
			3	Reprimanded
			5	Withdrawn
			2	Dismissed
			<hr/> 42	
Failing to provide a suitable receptacle for house refuse	...	...	3	Dismissed
GRAND TOTAL	...	...	<hr/>72	

<i>Cases</i>			<i>Summary</i>	
49	Fined \$530.00
10	Reprimanded
8	Dismissed
5	Withdrawn
<hr/> 72				

Leave of Absence—1954

<i>Officers</i>	<i>Vacation Leave No. of Days</i>	<i>Sick Leave No. of Days</i>	<i>Local Leave No. of Days</i>
Aberdeen, K.—Typist	21	7	—
Alfred, E.—Sanitary Inspector	—	—	5
Assing, C. C.—Deputy C.S.I.	—	—	7
Boucaud, R.—Sanitary Inspector	56	—	—
Brathwaite, E.—Sanitary Inspector	21	—	—
Callender, E.—Sanitary Inspector	42	14	—
Carpette, O.—Overseer	70	5	—
Davidson, C.—Sanitary Inspector	21	—	7
Dubois, C.—Sanitary Inspector	21	7	—
Forde, G.—Sanitary Inspector	98	—	—
Forde, O. E.—Chief Sanitary Inspector	—	40	—
Hinkson, G.—Sanitary Inspector	21	—	—
Hodge, Lennox—Sanitary Inspector...	56	—	—
Holdip, M.—Sanitary Inspector	—	58	—
Howard, J. R.—Sanitary Inspector	—	—	14
Joseph, A.—Messenger	42	—	—
Joseph, V.—Clerk	21	—	—
Khan, V. S.—Sanitary Inspector	21	—	5
Langton, E.—Typist	21	24	—
Lewis, E.—Sanitary Inspector	21	—	6
McTurner, K.—Sanitary Inspector	21	10	—
Marcial, R. S.—Sanitary Inspector	21	—	—
Mitchell, T. M.—Principal Assistant...	126	—	—
Mohammed, F.—Sanitary Inspector	21	14	—
Nurse, G.—Sanitary Inspector	21	—	—
Parris, J. E.—Overseer	42	—	10
Perryman, V.—Acting Clerical Assistant	—	4	—
Pierre, G.—Sanitary Inspector	84	60	—
Rivers, F. B.—Sanitary Inspector	—	11	5
Romain, A.—Principal Officer	—	—	11
Sampson, A.—Sanitary Inspector	21	—	—
Seon, F.—Sanitary Inspector	—	8	10
St. Cyr, H.—Sanitary Inspector	14	—	—
Thomas, F. A.—Sanitary Inspector	21	—	5
Turney, H.—Sanitary Inspector	84	—	—
Wilson, A.—Clerk	28	—	—
Young, J. F.—Supervisor	42	210	—
			<i>Study Leave</i>
de Four, H.—Sanitary Inspector	...	...	365
			<i>Special Leave</i>
Aberdeen, K.—Typist	...	...	93

Staff—Resignations, Study Leave, &c.**RESIGNATIONS:****JUNIOR SANITARY INSPECTORS**

<i>Name</i>	<i>Date of Resignation</i>	<i>Length of Service</i>
M. M. Nunes	17th January, 1954	1 year and 5 months
B. L. Scott	17th May, 1954	2 years and 5 months
E. Lewis	22nd September, 1954	2 years and 9 months

SCIENTIFIC ASSISTANT

<i>Name</i>	<i>Date of Resignation</i>	<i>Length of Service</i>
E. C. Parris	1st April, 1954	7 months

STUDY LEAVE:

Grade "A" Sanitary Inspector de Four's course in Health Education in the United Kingdom was extended for another year.

OBITUARY:

Grade "A" Sanitary Inspector (Buildings) Gregory Pierre died on 5th September, 1954, whilst still in the service. He served in this Department for 16 years. He was a most hard-working and conscientious sanitary inspector and he set an example of perseverance in duty that has inspired many of the younger sanitary inspectors.

FINANCIAL**Revenue and Expenditure—1952-54**

REVENUE				1952	1953	1954
Revenue collected by the Public Health Department				\$ 628.82	\$ 634.40	\$ 882.58
EXPENDITURE						
Salaries and allowances	...	...		\$ 92,791.05	\$103,231.24	\$105,469.66
Wages and allowances	...	...		94,035.57	96,936.11	109,402.11
Materials, Maintenance, &c.	...	...		20,830.53	45,701.20	44,008.74
				\$207,657.15	\$245,868.55	\$258,880.51
Disposal of Night Soil	...	...		7,217.48	6,790.58	7,203.20
Emptying of Cesspits	...	...		29,829.06	27,558.09	*31,982.01
				\$244,703.69	\$280,217.22	\$298,065.72
TOTAL	...	...		

*Emptying of Cesspits—Amount recoverable from house owners \$12,372.44.

ACKNOWLEDGMENT

The work of the Public Health Department continues to increase every year with the increasing population of the City and with the need for greater, wider and more intensive and more varied public health services.

With a greater health consciousness the residents of the City demand and expect better general and personal health, a higher standard of sanitation and environmental hygiene, and more efficient services promptly and thoroughly executed. That we have been able to maintain the public health in a not unsatisfactory state is due to the devotion to duty, and the loyalty of the staff pensionable and non-pensionable, and to the conscientious day-to-day routine work performed under the able direction and leadership of the Chief Sanitary Inspector Mr. O. E. Forde, Cert. R. San. I. and the Principal Assistant Mr. T. M. Mitchell, Cert. R. San. I.

I am convinced that all these employees are sensible of the great responsibility that is theirs, have the welfare and prestige of the Department much at heart, and have all spared no effort to render a public service which can be considered the supreme of all services, i.e. that of maintaining the health and sanitation of the urban Sanitary District, without which all other services would be a nullity.

For this I am deeply grateful, and I seize this opportunity to commend their services to the favourable notice of the Local Authority.

Finally whilst appreciating their work, I am not unmindful of the disabilities they suffer as compared with Sanitary Inspectors and other workers in the employ of the Central Government, and in the same way that I expect them to spare no effort to keep the flag of the Department flying, so I am also to request the Local Authority to make haste to furnish the wherewithal with which to make the staff of the Department a satisfied and contented staff, willing as always, to continue to give of their best, and anxious to stay in the service of the Local Sanitary Authority until the end of their working days.

